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ABSTRACT

This final report discusses the activities and outcomes of a project designed to investigate the sustainability of two federally funded intervention programs by school staff. The first, Eastlake High School Inclusion Program, implemented processes and instructional interventions designed to support the full inclusion of students with disabilities throughout the school community. One year after the federal grant ended, however, the program was no longer being implemented. The second program, the Sound Partners Program, is a supplementary, phonics-based one-to-one tutoring program for primary grade students at highest risk of reading failure. The program assigns tutors to work with students for 30 minutes a day, four days a week, for the entire school year. Sound Partners was designed to incorporate up-to-date research on effective early reading instruction for students at risk for reading disabilities. It was also specifically intended to enable paraprofessional tutors to teach critical beginning reading skills effectively to students who would not learn to read with classroom reading alone. This report discusses components of the Sound Partners program, activities during years 2-5 after the original federal grant ended, refinements to the program, and key characteristics of successful implementation. Extensive appendices include articles and materials related to the project. (Contains 48 references.) (CR)

Sustainability of Promising Innovations

CFDA 84.023D
Directed Research Project
Grant No. H023D70408

Final Report

Performance Report Period
November 1, 1998 – October 31, 2002

Submitted by

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I. Introduction: Bridging the Research-to-Practice Gap

In 1997 the U.S. Department of Education Office of Special Education Programs funded a group of directed research projects to study the gap between research and practice in special education, particularly the sustainability of specific intervention programs by school staff, rather than by the original project researchers. This research-to-practice transition takes place in many schools after federal grants end, and the program developers leave their interventions in the hands of local practitioners.

Washington Research Institute's (WRI) Sustaining Project was originally funded to study the continued implementation of two project models, the Eastlake High School Inclusion program at Eastlake High School in Seattle, WA, and the Sound Partners tutoring program at five elementary schools in Seattle, WA. During Year 1 of the project, we explored qualitative research methods to describe the variables influencing the research-to-practice transition and successful, sustained use of these two models by school staff. After numerous meetings and informal discussions with other sustaining projects funded in 1997, we determined that we could not profitably or practically use common measures or methods in tracking the sustainability of these projects. Therefore each sustaining project selected and used measures best suited to the practices they were studying.

The Eastlake High School Inclusion Program – The Eastlake High School Inclusion Project, was directed by WRI's former principal investigator John Emerson, and was based at a new high school in one of Seattle's eastside suburbs. The Eastlake High School Inclusion project implemented processes and instructional interventions designed to support the full inclusion of students with disabilities throughout the school community. Model processes included collaborative planning among general and special education staff (including a school team organized, facilitated, and paid for by the Eastlake Inclusion Project to review issues concerning the instruction of students with disabilities), as well as supports needed by general education teachers. The project also assisted in the implementation of research-based practices to support inclusion, such as peer tutoring, testing accommodations, and study and organizational skills. Prior to this sustaining project, Inclusion project staff worked closely with the Eastlake High School principal, who was fully committed to the concept of full inclusion and selected classroom teachers who were also supportive of this goal.

As we reported in our Year 1 (1997-98) Performance Report, soon after we contacted staff at Eastlake for this sustaining project, we discovered major staff changes, including the imminent retirement of the principal, and turnover in special education staff who were key players in the school's inclusion model. We found that only one year after the federal grant ended (which supported the Inclusion model), the program was no longer being implemented. After discussion at the end of Year 1 with our Project Officer, Helen Thornton, we modified the work scope of this grant to focus entirely on the sustainability of the Sound Partners model.

The Sound Partners Program – The Sound Partners program (Vadasy, Wayne, O'Connor, Jenkins, Pool, Firebaugh, & Peyton, 2002) was first designed by WRI research staff in 1993 and has since undergone many revisions. Sound Partners is a supplementary, phonics-based, one-to-one tutoring program for primary grade students at highest risk of reading failure. The program prescribes tutors to work with students for 30 minutes a day, four days a week, for the entire school year. Sound Partners was designed to incorporate up-to-date research on effective early reading instruction for students at risk for reading disabilities. Most important, the program was specifically designed to enable paraprofessional tutors, without prior training or instruction, to effectively teach critical beginning reading skills to students who would not learn to read with classroom reading instruction alone. During our research on Sound Partners, we have collected student assessment data (often before and after tutoring), onsite program fidelity observations on tutors, and interviews with key site staff. Over the years we have also collected and integrated informal feedback and transcribed interviews with school staff, tutors, and classroom teachers.

As given in our first performance report in 1998, school sites were able to sustain some elements of the Sound Partners program during Year 1, but were unable to maintain acceptable student outcomes we had observed in previous (research) years. Program implementation during this first year of the sustaining project differed significantly from all subsequent years of the project: first, only four out of five schools participated as research sites that year; second, data collected via onsite tutor observations showed program fidelity to be extremely low, averaging 65% – quite dissimilar from the previous four years of the project, for which average tutor fidelity was 85.5%; and finally, Year 1 tutors included a large group of high school students who did not consistently attend or provide quality tutoring to our at-risk first graders. In comparison, all tutors in Years 2 through 5 were paid, adult paraprofessionals who were, more often than not, parents of older children in the school or community. As described in the 1998 Performance

Report, student outcome findings for the 57 first-grade students assessed in Year 1 were disappointing, and we attributed these outcomes to the low quality of tutoring the students received. (Since then, we have discouraged schools from using high school students to implement the instruction.) This lack of program fidelity occurring in Year 1 of this project may be representative of growing pains felt by schools first attempting to independently sustain a program previously supervised and implemented by program designers. (Many schools were eager to offer Sound Partners tutoring even though they lacked the funds to hire paraprofessionals, and they found that they could recruit unpaid volunteers, including high school students needing community service credits.)

While Year 1 findings were disappointing in comparison to Years 2 through 5, we were able to use this year to explore and layout the best methods for 1) disseminating information on successful, independent program implementation for Sound Partners to other sites wishing to replicate the Sound Partners program (and student outcomes) seen in previous years, and 2) to track the sustainability of Sound Partners longitudinally at our local research sites. Thus, this report is based on data collected for the last four years of this grant, including our grant extension year, 2001-02. Specifically, we will share longitudinal findings from replication sites involving five Seattle schools, including research-to-practice transition and implementation strategies provided through interviews with key research site staff. Finally, we summarize implications for other researchers who endeavor to help schools put research into practice. Data we will report will address the original objectives outlined in our project's Plan of Operation. To reiterate, these were as follows.

- ✓ Objective 1.0: Plan and prepare for data collection for the school-level implementation of each innovation.
- ✓ Objective 2.0: Plan and prepare for data collection on district and state factors influencing sustained use of innovations.
- ✓ Objective 3.0: Collect school-level data on sustainability of innovations.
- ✓ Objective 4.0: Collect district and state data related to use and dissemination of interventions.
- ✓ Objective 5.0: Analyze project data.
- ✓ Objective 6.0: Develop case studies of selected practices.
- ✓ Objective 7.0: Manage project to maximize efficiency and quality of data collection.
- ✓ Objective 8.0: Disseminate project findings to both researcher and practitioner audiences.

II. Program Development and Methods: Sound Partners

Developed by staff at Washington Research Institute (WRI), the Sound Partners Program is a one-to-one phonics-based early literacy tutoring program that uses 100 explicitly scripted lessons designed specifically for paraprofessional (noncertificated teacher) use. Most often the program is used as a supplement to students' regular classroom reading instruction, and less often as an after-school program.

Since our initial design and fieldtest of Sound Partners in 1993 under Grant# HO23R20019, tutoring programs have become more widespread in schools. This growth has been due, in part, to President Clinton's 1996 call for the mobilization of "a million volunteer reading tutors all across America" to increase elementary reading achievement. The "America Reads Challenge" proposed by President Clinton has provided grants to support programs that promote children's early literacy (Wasik, 1998), and consequently schools have added one-to-one reading tutoring interventions. President Bush's Reading First initiative increased federal funding for reading programs from $300 million in FY 2001 to more than $900 million in FY 2002, tying federal funding to the use of scientifically proven methods of reading instruction. Under the No Child Left Behind act (NCLB), every school district will have the choice to direct up to 50% of federal non-Title I money to programs that positively impact their student population, and students enrolled in public schools that were consistently low-performing must have access to a choice of supplemental tutoring services.

In many of these newer tutoring programs, tutoring is provided by volunteers and other nonprofessionals rather than by certificated teachers. Schools must actively recruit these nonteacher tutors, who may be Americorps volunteers, college students, corporate employees, or most often, parents and grandparents of children in the school community. These paraprofessional tutors come with a wide range of life experiences, teaching skills, and education levels – but, as we have reported in our research on Sound Partners, if tutors are provided with and well-trained in a scripted, systematic tutoring program, they all have the ability to provide effective instruction in early reading skills.

The theoretical basis for the instructional targets in the Sound Partners program comes from findings on effective practices for helping young children learn to read. Questions about the best instructional approaches in learning to read have been explored and reported in a robust body of

literature over the past decade (Adams, 1990; Adams & Bruck, 1995; Bond & Dykstra, 1997; Graves, Dykstra, 1997; Grossen, 1997; Juel & Minden-Cupp, 1998, 1999; Foorman, Francis, Fletcher, Schatschneider, & Mehta, 1998). Preventive and remedial tutoring continues to be widely used as a strategy for assisting students at-risk for academic failure; and in particular, research on the treatment of reading disabilities supports one-to-one tutoring instruction (Juel, 1988, 1996; Morris, Shaw, & Perney, 1990; Topping, 1998; Shanahan, 1997; Wasik, 1998; Wasik, & Slavin, 1993). Formal evaluations of several school-wide reform models (e.g., Success for All, Reading Recovery, and Read Across America) attribute the success of these models, at least in part, to their effective *one-to-one tutoring* component (Topping, 1998; Wasik, 1998).

Alphabetic knowledge is essential for reading acquisition (Ehri, 1998), and young readers must develop fast, accurate decoding skills (Ball & Blachman, 1991, Fuchs, Fuchs, Thompson, Otaiba, Yen, Yang, Braun, & O'Connor, 2001; Hatcher, Hulme, & Ellis, 1994) to keep up with their peers. If these skills are not developed by the first grade, students are likely to remain poor readers in higher grades (Juel, 1988). Research has also verified that beginning readers are much more likely to develop proficient word reading skills if they receive systematic phonics instruction (Calfee, 1998; Foorman, Francis, Fletcher, Schatschneider & Mehta, 1998; Spear-Swirling & Sternberg, 1996; Torgesen, 1998; and NICHD, 2000). Organized phonics instruction allows children to use orthographic regularity to identify words rather than to guess from context. A direct, organized way of acquainting children with the major components of the alphabetic system is more effective than an indirect, "implicit" approach that lacks precision, order, and clarity (Adams, 1990; Ehir, Nunes, Stahl, & Willows, 2001; Fielding-Barnsley, 1997; and Vellutino, 1991).

Based on these research findings, Sound Partners was developed to address the needs of first-grade students at risk for reading disability and failure. Since its inception, the Sound Partners program has targeted the phonological and early reading skills necessary for student reading achievement. Typically, classroom teachers identify at-risk first-grade students to work with their nonteacher tutors. This one-to-one tutoring provides intensive instruction to help at-risk students catch up to the reading level of their higher-achieving peers. In all earlier evaluations of the Sound Partners program, tutored students outperformed matched nontutored students on word identification, decoding, and spelling measures (Vadasy, Jenkins, Antil, Wayne, &

O'Connor, 1997a; Vadasy, Jenkins, Antil, Wayne, & O'Connor, 1997b; Vadasy, Jenkins, & Pool, 1997).

In the process of designing Sound Partners, we have fieldtested formats to determine which components tutors could best use for teaching letter-sound correspondence, phoneme segmentation and blending, spelling, word reading, and reading practice in texts. We have also fieldtested variations in training approaches to prepare tutors to implement the instruction effectively.

Sound Partners Lesson Components

Sound Partners lessons are designed to target specific phonics skills. These skills are taught systematically, and progressively become more complex, building upon previously taught skills as the student progresses through the lessons. The sample lesson shown in Appendix B illustrates the layout of each lesson, with the left side of each page designed for student use with large print, and the right side of each page scripted for tutor use (with smaller print). Each component is designed to take from 2 to 15 minutes to complete, with the text reading portion of the lesson lasting from 5 to 15 minutes, depending on the skills learned (lesson level) to that point. Components studied over the last four years have targeted: letter sound correspondence, segmenting, blending sounds into words, reading phonetically regular words, spelling regular words, word families, fluency practice, reading and spelling nonwords, and practice reading irregular and high-frequency words scheduled to appear in the text portion of the lesson.

Over the years of this project, components were revised based on their impact on student outcomes as well as their suitability for reliable implementation by paraprofessional tutors. For example, the Magic Letter Board component was removed since tutors could not manage the materials efficiently. Because student behavior problems often arise when students are not transitioned quickly from one task to another, the pacing and delivery of instruction are especially important to our program.

In Table 1 we describe each component (ever used) in detail. An explanation of component modifications over the years follows, as these modifications were part of our efforts to secure effective program use in dissemination sites.

Table 1

Lesson Component Descriptions

Sound Partners Lesson Component		Year			
Name	**Description**	**Year2 Phonics + Fluency**	**Year3 Phonics + Fluency or Phonics + Text Reading**	**Year4 Phonics + Fluency or Phonics + Fluency + Text Reading**	**Year5 Phonics + Text Reading or Intensive Phonics Only**
Letter Sounds	Students were gradually introduced to the most common sounds associated with single letters followed by blends and digraphs. They were introduced to a new letter sound or blend each lesson, and given a review of previously taught sounds. Students also practiced writing selected letter sounds.	✓	✓	✓	✓
Segmenting	Tutors said words for students to break into phonemes using Elkonin boxes. Students would put their finger on each box as they said a sound in the word, then finish by sweeping their finger under the boxes and saying the whole word. This auditory task taught the students to hear the individual (phonemes) sounds in words, and separate them. The ability to segment words is particularly useful as students begin to spell.	✓	✓		✓
Word Reading	Explicit decoding instruction focused on words made up of previously introduced letter sounds. Students were taught to blend the letter sounds together to form words.	✓	✓	✓	✓
Spelling	Each lesson, students practiced spelling three new words selected from the word-reading list. Students were taught to segment words into their constituent sounds and represent the sounds with the appropriate grapheme (letters in writing), followed by blending the written product into a spoken word.	✓	✓	✓	✓
Word Families	Sets of words based on a particular rime family were presented. Students were directed to circle the part of the word that was the same, say the sounds then read the words. Tutors dictated up to five words for students to spell using the newly introduced word family. This activity was used to help students generalize patterns in words, increasing the words in their lexicon.	✓	✓		
Magnetic Letter Board	In the versions of Sound Partners prior to 1998, tutors used a magnetic board to build specific words from the lessons. Students were instructed to watch as the tutor removed or changed letters to make a new word. Students were then asked to read the words. Finally students were asked to make words using the selected letters. This activity was used to teach students to notice the orthographic features in words, teach word families, and to solidify the alphabetic principle in which phonemes are mapped onto specific graphemes in words.	✓			
Sight Word Reading	Students were taught to read a set of irregular (nondecodable) words that appeared in their text reading. Each day the students practiced previously learned irregular words along with new irregular words that were gradually added as needed for reading the text. Tutors said the new words and had students read, say the letters, and then read the word. This component helped students to automatically recognize taught high-frequency irregular words such as 'the.'	✓	✓	✓	✓
Sentence Reading	Students read 1 or 2 sentences containing sight words previously taught.	✓	✓	✓	✓
Word Finding	Tutors presented sets of words and nonwords containing target letter sounds. Students were asked to identify certain words within the list, say how they recognized the word, then asked to read the remaining words. This activity provided students the opportunity to pay attention to orthographic features in words, discriminate between letter patterns, and practice mapping phonemes to graphemes in order.	✓			

Table 1, Continued

Lesson Component Descriptions

Sound Partners Lesson Component		Year			
Name	**Description**	**Year2 Phonics + Fluency**	**Year3 Phonics + Fluency or Phonics + Text Reading**	**Year4 Phonics + Fluency or Phonics + Fluency + Text Reading**	**Year5 Phonics + Text Reading or Intensive Phonics Only**
Sentence Dictation	Once students progressed through the first quarter of the lessons the sentence dictation component was presented. Tutors dictated sentences for students to write that contained the newly learned sounds and words from the lessons. Once the student completed writing the sentence, he/or she read it to the tutor and checked the words for accuracy in spelling using their newly learned sounds and words.	✓	✓		✓
Nonword Reading	Students were presented with nonwords containing the newly learned letters. Students were asked to tell the tutor how the words would sound. This task required students to use their decoding skills with the newly learned letter sounds. By using nonwords, students were required to use their decoding skills instead of recognizing words by sight in a gestalt manner.	✓	✓		✓
Pair Practice	Students were presented with letter pairs to practice writing and reading. Following they were given words containing the targeted pairs to decode and spell. Finally students were asked to read nonwords containing the targeted letter pairs.				✓
Text Reading	A new book was introduced every two lessons (i.e., 100 lessons = 50 books). The book reading procedure was: 1) Read the new book for the lesson two times; 2) Reread the previously introduced book once; then; 3) Reread any other previously read books for the remainder of reading time. The end goal for each text was independent reading, with the tutor providing minimal scaffolding support. For independent reading, the student read the book with coaching from the tutor only on difficult words. As students gained more decoding skills from the lessons, the books increased in length. Students were provided the opportunity to reread familiar books. Books were matched to the lessons to be decodable (phonically regular relation between letters and sounds, and close match between letter/sound relationships taught in lessons and represented in the texts. The majority of words appearing in the books were consistent with the letter sounds and word features in the phonics lessons. As part of the phonics lessons, students had been taught to sound out all regular words in these texts and had been taught to read the irregular words as whole words in the sight word portion of the lessons. The main book series in the Sound Partners program was the Bob Book series (Scholastic, 1987), supplemented by a few books from the Get Ready, Get Set, Read! series (Barron's Educational Series, 1996) featuring specific word family or rime units taught in the lessons.	✓	✓	✓	✓
Fluency Practice	Students were provided with timed fluency practice in letter sounds, words, and text. Previously introduced letter sounds, words and text from the story books were arranged on practice sheets for timing. At the end of each lesson, students were timed on letter sounds, word reading and passage reading. The numbers of sounds, or words correctly read per minute were recorded and graphed.		✓	✓ (Powerful Schools Only)	

Each year, we incorporated tutor feedback, staff observations of lesson use, and the most recent research into the Sound Partners lessons. When we saw that elements of the program were misused during our observations, we determined ways to teach the targeted skills in a more efficient manner that tutors could implement more reliably. Components that were awkward for tutors to organize or too time-consuming were replaced with more streamlined, effective activities.

For example, the Segmenting component was removed in Year 4 (2000-01) due only to time constraints during lesson time (there was an increased time allotment for text reading). We reduced the text reading time in Year 5 and added Segmenting back into the lessons for Year 5 (2001-02).

The Magnetic Letter Board component was removed after Year 2 (1998-99), and replaced with dispersed written and oral spelling practice in several lesson activities. Through observations, we found that it was difficult for tutors to use the letter board effectively within the time allotted. To use this component efficiently, tutors would need to have the required letters selected ahead of time, and then move the letters quickly when changing them. Both tasks proved difficult, as letters would get misplaced, and students or tutors would be tempted to spell words other than those prescribed in the lessons, thus taking away from the systematic, targeted instruction. While the theoretical basis for this task was strong, nonteacher tutors were not able to manage the task efficiently.

Word Family instruction was another component that was not efficient to use during the limited time available. We also found that students showed a limited generalization of word family skills due to their unreliable word identification skills. Once students could read the words within the family, the added focus on the rime unit did not generalize to additional words in the families. After observing the inefficient use of this lesson component as well as its lack of effectiveness, we removed it from the lesson content in Year 3 (2001-02), and after another year designed the new Pair Practice component (Year 5, 2001-02) to provide practice at the more reliable letter-pair level where English sound-spelling correspondences are highly regular.

Both Word Finding and Nonword Reading were components that tutors had difficulty using effectively at times. Word Finding was removed entirely from the lessons after only one year of use (Year 3, 1999-00), while Nonword Reading was removed in Year 4 (2000-01) and refined

for Year 5 (2001-02). Additionally, nonwords were added into the new Pair Practice component in Year 5 to provide students practice in decoding newly learned letter pairs.

Like Segmenting, Sentence Dictation was removed in Year 4 (2000-01) due to time constraints from the increased emphasis on text reading that year; by Year 5 the component was placed back into the lessons.

Fluency Practice was added in Year 3 (1999-00) to increase students' rate in producing letter sounds, word reading, and connected text reading. With the addition of this fluency practice, tutors and students progressed through the lessons at a slower rate. The amount of time used to complete the fluency practice, including arranging the materials, working with a timer, and graphing student rates did not yield an increase in reading rate, word reading, decoding, or spelling outcomes as compared to years when this component was not used. In addition, the fluency component was fairly labor intensive for tutors. In our comparison pilot study we examined the effectiveness of this timed practice by comparing a group of students who used the fluency materials (timed practice) to a group of students who continued through the lessons without timed practice. While there were no statistically significant differences, the group of students who did not complete the timed practice tended to have higher pretest-to-posttest gain scores than those who participated in the timed fluency practice. Observation data indicated that accuracy of implementation was low. With the addition of knowledge from the research field that fluency practice is best taught after initial decoding skills are more solid it made little sense to continue the practice. Consequently, fluency practice was removed from the lessons in Year 5 (2001-02).

An important aspect of our work in the sustaining project, then, has been experimenting with the content and delivery of the Sound Partners program's instructional components in the course of tracking continued use of the program.

Each year our research team worked to clarify and simplify tutor directions in the lessons to ensure accurate delivery of the instruction. Additional training and coaching was implemented for tutors to develop and maintain a rapid pace through the lessons enabling them to keep students engaged and to cover more instructional material. Each year we have been pleased to find that the refinements to the Sound Partners program yield similar positive results – students consistently outperform nontutored students, and significantly increase reading and spelling scores from pretest to posttest.

Sound Partners Program Training

We have provided Sound Partners training (approximately 2 hours) and materials to tutors and reading staff at all school sites at no cost throughout the duration of this project, and we are currently looking for additional grant funding to continue to do so. (Without these additional funds, at the end of this academic year we will begin charging sites approximately $600 per training and $80 per master set of Sound Partners materials.) Each year we revise the Sound Partners program materials, and twice per year, our core research staff have spent time "training the trainers" in order to bring our contract program training staff up to speed on the latest refinements to the program. Our semi-annual (and sometimes individual) "train-the-trainers" instruction has resulted in one of our sites, the Powerful Schools, successfully providing its own independent Sound Partners training and tutor observations since Year 3 (1999-00).

Program training at sites typically consists of one or two presenters/trainers delivering instruction using a Sound Partners tutor handbook as a guideline for all participants to keep pace and stay on track. A brief introduction to the program is given, which includes some definitions of terminology, development history, theoretical background, and a 5-minute video overview of the program (video production was paid for by Casey Family Programs in Seattle, WA). During this period individual school sites may opt to discuss tutor performance guidelines (e.g., consistent attendance is required or they will be dismissed, etc.). After the introduction, the trainer outlines and models each component, and at various intervals trainees are paired up and provided opportunity to practice being the "tutor" as well as "student" for each component taught. The presenter then concludes the training with tips on managing tutoring time, student behavior, and materials organization, and addresses any questions the trainees may have.

Our staff has consistently found that student behavior problems are the chief concern for tutors. In the initial training described above, we offer a few guidelines for preventing and dealing with problem behavior – such as using specific praise whenever possible, having *consistent* policies on behavior from the outset (e.g., "When we are together, your feet must be on the floor and you must be sitting in your seat at all times."), and being organized to minimize transition time between components. Additionally, we train tutors to use positive affect while minimizing personal discussion, as it distracts students from the precious reading tutoring time available. Further, we advise tutors to make a plan with classroom teachers or the school principal on how to handle specific behavior issues for each student they tutor.

Finally, we encourage site coordinators or lead tutors to observe their tutors using the Sound Partners tutor observation form to ensure program fidelity. The form lists criteria for correct implementation of each component, as well as correct implementation of tutor time management and affect. Appendix C illustrates our tutor observation form from Year 5 (2001-02).

III. Results: Nonresearch and Research Sites

Nonresearch/Dissemination Sites

One of the major tasks of this project was to disseminate procedures for successfully implementing Sound Partners to other sites wishing to replicate the program. Over the last four years of this project, over 800 people from 48 nonresearch sites have been provided with Sound Partners training and technical assistance at no cost. These sites are usually public elementary schools (although a few were school districts and private K-8 schools) who have purchased one master copy of the Sound Partners program for themselves and requested us to train their tutors on site. The table below describes these sites in more detail.

Table 2

Nonresearch Training Sites

Year	District/Organization	No. Tutors Trained	Year	District/Organization	No. Tutors Trained
Year 2 (1998-99)	Highline SD, WA	21	**Year 5 (2001-02)**	Bainbridge Island SD, WA	5
	Lummi Island SD, WA	20		Casey Family Programs, WA	2
	Seattle SD, WA	20		Castle Rock SD, WA	1
	Spokane SD, WA	40		Cape Flattery SD, WA	6
Year 3 (1999-00)	Edmonds SD, WA	22		Coupeville SD, WA	1
	Highline SD, WA	12		Edmonds SD, WA	32
	Longview SD, WA	22		Granger SD, WA	1
	Mercer Island SD, WA	15		Highline SD, WA	25
	Mukilteo SD, WA	25		Issaquah SD, WA	7
	Seattle SD, WA	56		McCleary SD, WA	24
	Sedro-Woolley SD, WA	6		Mercer Island SD, WA	13
	Spokane SD, WA	50		North Port SD, WA	1
Year 4 (2000-01)	Edmonds SD, WA	22		Queets-Clearwater SD, WA	5
	Gig Harbor SD, WA	24		Quincy SD, WA	1
	Issaquah SD, WA	27		Seattle Archdiocese, WA	27
	Methow Valley SD, WA	8		Seattle SD, WA	131
	Seattle SD, WA	104		Soap Lake SD, WA	4
	Vashon SD, WA	21		Tacoma SD, WA	42
				Toppenish SD, WA	5
				Toutle Lake SD, WA	16
				Wishkah Valley SD, WA	4

Our contact with most nonresearch sites has been limited; funds did not allow our staff to conduct student assessments or onsite tutor observations for these schools. Nevertheless, some sites have contacted us with feedback on student progress. For example, St. George School in Seattle used the program with first and second graders who were tested by the school's staff. Students placed in the tutoring program tested in the bottom 30th percentile on the Wide Range Achievement Test Revised (WRAT-R) Reading subtest at the beginning of the school year (Year 5, 2001-02). These students showed significant increases from beginning to end of year, moving from 28th percentile to 58th percentile (50th percentile = grade level). Additionally, the students who were tutored four days per week significantly outperformed their peers who were tutored only two days per week, with an adjusted mean of 65th percentile compared to 44th percentile, respectively.

Research Sites

The second major goal of this project was to track the longitudinal progress of schools that have been using the Sound Partners program for an extended period of time. In this report we focus on the study of two sites (comprised of five Seattle elementary schools) from Year 2 (1998-99) through Year 5 (2001-02) of this project. Tutor, student, and school site data were gathered through a variety of approaches to create a useful, comprehensive analysis for successful research-to-practice program transition and implementation. Data collected includes informal tutor feedback, formal interviews and informal discussions with site staff (coordinators and principals), onsite tutor observations, lesson completion via attendance forms, and student pretests and posttests (administered by the research team).

Four of the schools are grouped as one sustaining site, called the Powerful Schools Coalition (Powerful Schools), which has used the program since 1993. The other school site studied is Viewlands Elementary School (Viewlands School), which has been using the program since 1998. These two sites are quite different from one another, and represent two settings in which the Sound Partners program might be implemented (website addresses provided in Appendix D).

Powerful Schools – Powerful Schools is a non-profit organization that promotes and supports high-quality educational enrichment among a cluster of four south Seattle public elementary schools serving a more economically and ethnically diverse population than most Seattle schools. The overall student population for the Powerful Schools in 2001 was as follows: 47%

African American, 26% Asian, 14% Caucasian, 11% Latino, 2% American Indian; 17% of the students qualified for bilingual services. From 1993 to 1997, the Powerful Schools served as the original fieldtest site for the Sound Partners program. It is only fitting that within their mission, the Powerful Schools continued to provide Sound Partner tutoring to their at-risk first grade students once they were no longer a fieldtest site for the program. Sound Partners has been a key program in the earliest grades for the students at-risk of reading failure in the Powerful Schools. It prepares their students to benefit from other programs within the schools, once basic literacy skills are improved. Powerful Schools has found that of all of their instructional interventions, Sound Partners is the most prescribed, best researched and most extensively evaluated program they offer. The data collected from fieldtest years in the Powerful Schools demonstrated that tutored students significantly outperformed a comparison group of nontutored students on standardized reading, spelling, and decoding measures (Vadasy et al., 1997 a,b).

From 1993 to 1997, our research staff was involved on-site at Powerful Schools designing and fieldtesting Sound Partners. Immediately following the research phase as a fieldtest site, Powerful Schools implemented the Sound Partners program with considerably less research involvement. Researchers took on an "outside observer" role and moved away from the "participant observer" role, providing progressively less on-site assistance in program implementation. The Powerful Schools hired one of their strong veteran tutors to function initially as lead tutor in Year 1 (1997-98). This person, Valerie Wells, became the Powerful Schools Program Coordinator in Year 2 (1998-99), and has been responsible for hiring, training, and coaching Sound Partners tutors at their site since this time. (Her position was initially half-time but the Powerful Schools now funds her full-time.) She has been instrumental in determining what energy and resources would be needed to continue the successful implementation of the program without our assistance. Because the Powerful Schools site is unique in its funding and administration, the lessons it offers other sites may be most useful for district-wide replications rather than for single school replications.

Viewlands School – Viewlands School is located in the north end of Seattle in a middle-class neighborhood with a lower proportion of minority students than Powerful Schools. The school has used Sound Partners throughout the duration of this project, from 1998 to present. In 2001, the overall student population was 53% Caucasian, 19% Asian, 14% Latino, 10% African American, and 5% American Indian; only one student qualified for bilingual education. The

school's goal is to serve as a cohesive team to promote academic success and accommodate learner needs. When it became evident that some of their students at risk for reading failure could benefit from supplementary reading tutoring, the school principal made efforts to implement Sound Partners using paid-parent tutors. The principal found that Sound Partners fit the school mission of promoting self-reliance and self-responsibility by providing struggling readers with reading skills.

Viewlands School has demonstrated a long-term commitment to implementing the Sound Partners program, and has been part of this project since Year 2 (1998-99). Throughout the duration of this sustaining project, Viewlands School has also served as a research site for our Field-Initiated Research project (which has involved a variety of reading interventions other than Sound Partners), and our staff has provided continued on-site training and tutor supervision in a much more participatory role than with Powerful Schools. However, we focus on Viewlands School in this report because it also offers lessons for successful Sound Partners replication for single school sites.

Research Site Staff Interviews

In order to include the perspectives of school staff whose support was crucial for replication success, in the spring and summer of 2002 we conducted interviews with the key school leaders at Powerful Schools and Viewlands School. We posed questions that would help fill in the gaps about how Sound Partners can be implemented effectively in two quite different school settings.

At Powerful Schools we interviewed Gregory Tuke, Executive Director, and Valerie Wells, full-time Program Coordinator. Greg has directed Powerful Schools since its formation in 1992, and is responsible for raising funds for the Sound Partners program as well as other Powerful Schools programs. Val began working as a tutor for Powerful Schools in 1995, and now hires, trains, and supervises 19 Sound Partners tutors. Powerful Schools raises funds to enable the four participating schools to implement a wide range of academic and supplemental programs for students and their families. Some of these programs have come and gone, but Sound Partners has been ongoing.

At Viewlands School we interviewed Cathy Profilet, School Principal. She has been securing funding, and maintaining quality tutoring as well as parent and teacher support for the Sound Partners Program since 1998.

Q: Why has Powerful Schools/Viewlands decided to continue to support Sound Partners tutoring all of these years?

Greg (PS): "As an administrator, for a program like this to be in a school, it has to have very high satisfaction ratings by the teachers and the principals. There has to be a way to show the program has concrete results. Sound Partners is a key program in our earliest grades to establish basic literacy skills in reading. Once students have those skills, the other programs build on that. Sound Partners is an initial building block, and it identifies the lowest performers. It's the most prescribed, the best researched and evaluated."

Cathy (VL): "Well, our mission is to promote self reliance and responsibility, and to show how Sound Partners fits in I would have to contrast it with what existed her in 1996 when I came – which was Whole Language. There were no strategies [for reading] so there were no processes that kids could own and fall back on when they didn't know what to do. So, with the Sound Partners tutoring [program], even the struggling readers know what to do – when they don't know what to do they can always fall back on the sounding out strategy or the chucking phonemes strategy, and they're never just helpless...So it fits into our mission of promoting self reliance and personal responsibility."

Cathy goes on to describe how, at Viewlands School, they have scheduled tutoring times so that students are pulled out of their classrooms in groups to avoid drawing negative attention from peers, and disrupting classroom instruction with repeated interruptions.

Q: What has been the biggest challenge in implementing Sound Partners?

Greg (PS): "Initially it was a challenge to understand the role of the research team during the fieldtest period. Second, there was the challenge of recruiting individuals who had the talents for tutoring. Third, we had to work out the logistics of creating the proper environment and consistent support for the program in our schools."

Cathy (VL): "I could say money, money, and money, but really it's money *and scheduling*; but scheduling not as much [as money] – we have been able to pull that off in the past."

Q: How did you address challenges [at your site]?

Greg (PS): "First, we had numerous conversations between the researchers and our staff, and with the tutors. We needed to establish a new culture between the parent tutors and the researchers to help parents experience the researchers' ongoing written observations as feedback from which to learn, rather than as punitive evaluations. Second, once we understood the commitment we needed from the tutors, we set up pay incentives and a system of supervising tutors to allow us to attract and retain the right people, and to manage the program efficiently. Third, after the schools saw the results we got with the students, school staff became more committed to making the program a priority, and they gave us the support we needed in terms of school space and teacher support."

Val (PS): "A big challenge was to secure space to allow all the tutors to work together in one room. That made the program much stronger. When tutors were spread out all over the schools there was no accountability for the tutors. And the tutors felt that they weren't part of a program. We found that when the tutors worked in one space, they felt that the school valued them enough to allocate space specifically for tutoring. Further, the tutors were then able to get support from each other – if they didn't know quite how to implement a part of the program, or if they had a student with challenging behaviors. They didn't feel they were left on their own. Tutors were able to listen in and then help each other afterwards. Bringing all the students to one spot also made for more efficient transitions from classrooms to tutoring – it lets us give each student a full 30 minutes of instruction. Finally, it allows us to supervise and coach the tutors."

Cathy (VL): "We been able to fund Sound Partners with soft money though donations from various foundations, most recently – the last two years –

through a Stanford Breakthrough grant (a school district grant). We used to get plenty of Title I money, but with the end of bussing and the change in demographics we still have a lot of students who need extra support but not quite enough students to drive the dollars in Title I or LAP (Washington State's Learning Assistance Program) to buy them the help they need, so we have relied on soft money for the last two years. The Stanford grant has been pretty good, but I hear they are drying up… and Windermere [a real estate agency] finally came through [and] helped us with some tutoring money even though it is in conflict with their mission statement, which is to help homeless people. I suggested an investment in learning would decrease the number of homeless people in the long run, so they should justify helping us with the tutoring for that reason."

Clearly, it requires a motivated principal to locate relatively modest funds needed to cover paraprofessional salaries to implement Sound Partners. At Viewlands School, Cathy Profilet needs $30,000 to fund six tutors to serve six students each, and per pupil costs for one year of tutoring is roughly $833. These costs are typical of program costs in other Sound Partners sites.

A consistent finding across our evaluations of Sound Partners has been that student outcomes are closely tied to the quality of tutoring the student receives (Vadasy, Jenkins, & Pool, 2000) – which includes consistent, positive, and paced instruction. Historically we have provided research sites with ongoing onsite tutor observations; Powerful Schools has taken over this role and actively collects these data themselves using our Tutor Observation form (see Appendix C), and Viewlands School is currently transitioning to do the same.

Q: What are the changes you made that most improved the quality of Sound Partners for your school?

Cathy: (VL): "I think our biggest change has been operational for a least the last three, maybe four, years, and that [change] was how we assign students to tutors. Formerly, we assigned all of the students from one class to one tutor (which meant that an adult had to open the classroom door six different times during a course of the morning). We now assign all of the children in one class to six different grown-ups, so the door just opens once and the kids come out as a group,

and then they disperse to their tutors for their half hour of tutoring. Then they regroup and enter the class as a group so the door actually opens twice (instead of 12 times if we had assigned one tutor to all the kids in one room). Because the students all go at the same time and return at the same time, it reduces the stigma of being pulled out one by one."

Q: How do you ensure quality tutoring at your site?

Val (PS): "We observe the tutors weekly and have regular staff meetings. We are very tough about requiring tutors to implement the program the way they were trained. We tell tutors that the bottom line is the students' best interests. Tutors have to be accountable. When I interview applicants, I stress that if they can't commit to using the program properly and showing up 4 days a week, then this program isn't for them."

Greg (PS): "We evaluate the tutors with our tutor observations, which we compare to the tutoring protocol to see they are being consistent. And through attendance– tutors have got to show up. Woody Allen's "90% of life is just showing up" holds true here.

We also offer the tutors lots of feedback. Valerie shares their evaluations with them, and also the student evaluations to let tutors know they are making a real difference. We now also have performance pay incentives to reward tutors for being consistent and showing up."

Cathy (VL): "Recruitment, I think. Look more carefully and usually it's a mom. We will look at people who are interested parents who primarily are around the school a lot, and who show interest in helping kids. [These individuals] are usually invited to tutor, and then if we discover that they're not really suited to the job, I have to find a way to gracefully replace them the following year. I think now I would look more closely, at first, at the level of education of the candidates' – and that isn't always the key factor but I would look at that first. If the level of education isn't very high but I have an instinct that the person would be really good, and shows an eagerness to be trained, like one of our tutors who is really great but doesn't have a high level of education, then I would hire the person

anyway because I can perceive a willingness to learn and comply with the [program] script.

We have learned that some people cannot deliver scripted instructions and those people had to go. We need adults who are able to show their connection to the kids in an appropriate way. The students need to know the tutors love them, because those one-on-one relationships seem to make a big difference in the student's life in addition to the specific work they do when they spend the time together.

WRI staff have [observed tutors] up to now, but this [coming] year I will use the [tutor observation form] that WRI has used in the past and try to figure out a way to do a rating on tutor performance, at least at midyear and the end of the year. Since I am retiring at the end of the year [2002-03], it may be wiser for me to train somebody else *so that this capacity is built into the school and doesn't go when I go.*

We also have tutor appreciation day/tutor appreciation week, and many teachers now recognize their value and compliment tutors on their work. Tutors are also included in what some people call a SIT – they are included in our team meetings, and they are frequently invited to the weekly SITs and quarterly classroom SITs, so in almost all planning we do for students [tutors] are included. They have their own space; they have the liberty to fix it up however they want. We pay them – I think they know they're valued – I think the key thing is that everyone know they're not incidental to student growth."

In all of the schools using Sound Partners in our region, parents are involved as tutors and fundraisers for the program. In two of our research sites, the Parent-Teacher Associations (PTAs) have raised most of the funds for tutor salaries.

Q: How are you able to secure support and funding from the community?

Greg (PS): "Our PTAs are really supportive because they know Sound Partners gets good results – they put their money into the program because of that."

Q: What advice would you give to a school just starting up a Sound Partners Program and wanting to make it as effective as possible?

Val (PS): "The first thing I would do is find someone who has used the program and sit down and talk with them. Go spend time with them to see what the program is all about. We've talked about helping other schools start using the program by taking our lead tutor and having her help others start their program. You have to set up a structure, and you have to set very clear expectations for the tutors.

I would recommend finding a school that has been in the program. You have to see the program in action to actually understand what's happening. You have to learn how to set things up and organize it, you have to know what to look for in tutors. Some tutors are intimidated by having someone observe them. They think they were coming to just read with a kid for a half hour."

Greg (PS): "I tell people that this is a program that is very prescribed. If you want to be highly creative, Sound Partners isn't a good match. The tutors have to understand they must use the program in a certain way because that's the way it's been tested and found to help students."

Val (PS): "I feel really good knowing that when a new teacher arrives the other teachers will tell her 'Well, you have to include your students in Sound Partners, it's the best thing for your students.' The teachers see that the program is built on research and a very strong infrastructure."

Cathy (VL): "Keep kids in small groups. If there is already a school exchange going on, try and make the Sound Partners movement match movement going on in the school in general. Have a transition method of instruction between Sound Partners and something like literature circles. There has to be a bridge between that strongly scripted work the kids do with their tutors, and the do-what-you-want-style, and some of the higher levels of reading groups. There has to be a direct connection between Sound Partners and absolute reading independence. There has to be a bridge to help kids to get to the point where don't need the explicit instruction. Include the tutors in the overall planning of students' academic program – thank them, pay them, and try and get the same people year after year participating in training. Invite them to workshops that are important to the

school, like the discipline plan – anything that is part of the value culture of the school, the tutor should be included in."

Q: What lessons, if any, have you learned from implementing Sound Partners? What would you recommend other sites do?

Val (PS): "An important lesson has been to only hire the number of tutors that can be successfully managed. A leader has to know about the program and how it should be done. It needs to be structured to work. Teachers respect it because it is structured; tutoring happens at a specific time for the students, and the lessons are systematic. They know what is covered. It takes time to come together. If you just get tutors and tell them, here's the tutoring program, go do it, it's not going to be successful. I think one of the reasons the teachers have such interest in Sound Partners is because the program is structured. The instruction has specific reading objectives and a scope and sequence. We take the students out of the classrooms at a specific time. We don't disrupt the classroom at one time today, and another time the next day. We are a part of the student's academic routine."

Cathy (VL): "I have been shocked by the commitment of our tutors. I think that they are just outrageously wonderful people who care so much about other people's kids as if they were their own – that's a amazing thing. That knocks my socks off.

Then you make every effort to get the money, and you have to go through all the hoops and changes and accountability to keep the money. We deserve an illiterate populous if we're not going to meet the needs of these kids. It is frustrating to not feel heard by people who are holding the purse string to the big money."

Research Site Tutor Characteristics

Our research team developed expertise in evaluating the potential strengths and training/supervision needs of adult nonteacher tutors through the years of our work with the Sound Partners program. Tutor teaching skills are an important component of any tutoring program, as evidenced by research showing that tutoring programs that use certified teachers tend to have greater effects than those using nonteachers (Wasik & Slavin, 1993). The tutors at both the Powerful Schools and Viewlands School sites were paid hourly by their respective

schools at district-scale wages (currently at approximately $10/hour). Most often these paraprofessionals were parents of students in the schools or retired members of the community, and thus closely reflected the student population – 14 (40%) of the tutors at Powerful Schools were from minority backgrounds, while Viewlands had only 1 (10%) minority tutor across all of the years of the project. The sites differed in their level of tutor turnover, which may be an indicator of the socioeconomic circumstances of each site: 40% of the tutors at Powerful Schools stayed for at least two years, and only 6% for all four years of the project, compared with Viewlands School, where 60% of the tutors stayed for at least two years, and 30% stayed for all four years.

Based on our staff's onsite observations and feedback from site staff and tutors, we developed additional tutor training, and provided ongoing coaching and follow-up meetings.

- ✓ Tutor Training: Research staff provided tutors with 3 hours of formal small group training in delivering the Sound Partners lessons for both sites in 1998. While the Powerful Schools continued to receive our support in providing initial training, in 1999 the site used their tutor coordinator to train, lead, and observe tutors. However, at Viewlands School, we provided tutors with ongoing training, coaching, and follow-up meetings throughout the project to ensure accurate delivery of the tutoring lessons.

- ✓ Tutor Observations: Sound Partners staff randomly observed tutors at all sites delivering the lessons to their students to measure accuracy in implementation. Monthly observations were conducted by research staff at Powerful Schools, whereas weekly observations were conducted at Viewlands School because Viewlands was also serving as a site for our FIR project. For both, data were collected on tutor fidelity to the lesson components, book reading procedures, management, and use of instructional time during the lessons. Reports on tutor fidelity performance were given to schools semi-annually in order to ensure that sites were aware of whether or not successful program implementation was occurring, and to use the information in their tutor hiring/rehiring decisions. Additionally, we were able to provide more effective, nonbiased feedback to tutors based upon these observation outcomes.

- ✓ Tutor Coaching: Coaching consisted of modeling lesson components and helping tutors to appropriately scaffold lesson tasks, and provide added practice for students. Coaching was provided during the tutoring sessions.

- ✓ Follow-up Meetings: Follow-up meetings were held for the tutors at their tutoring sites on a monthly basis at Viewlands. These meetings addressed tutor questions about lesson components, individual student progress, or student behavior management. This served as a forum for tutors to share ideas and review any new concerns. In addition, tutors were able to receive assistance or feedback before, during, and after lessons. At Powerful Schools our staff attended two to three tutor meetings per year to discuss issues of concern with tutors.

Research Site Student Characteristics

Age, gender, and ethnicity for each student identified for tutoring was provided by their schools. We also gathered information about which students were receiving English as a Second Language (ESL) or Special Education (SPED) services from the school. Over the course of the year, research staff collected student lesson coverage via attendance cards. Table 3 reports our demographic findings.

- ✓ Overall Tutoring Instruction: Through our research we have found that high lesson coverage is essential to student success in the Sound Partners program. In addition, tutor fidelity to the program is our assurance that the program is implemented correctly. Bearing in mind that Powerful Schools was implementing the program nearly independent of our assistance, across the project years Powerful Schools averaged lower mean lesson coverage and lower tutor fidelity to the program than Viewlands School. However, Powerful Schools was able to make great strides in Years 4 and 5 (2000-01 and 2001-02) in covering more lessons and having increasingly higher percentages of tutor fidelity. In fact, by Year 5, the two sites are comparable on tutor fidelity rates. This topic is explored further in the context of student outcomes and school staff interviews in the Implications section of this report.

Table 3

Research Site Characteristics by Year

Characteristics	*Powerful Schools*								*Viewlands School*							
	Year 2 (1998-99) n = 46		Year 3 (1999-00) n = 44		Year 4 (2000-01) n = 37		Year 5 (2001-02) n = 12		Year 2 (1998-99) n = 25		Year 3 (1999-00) n = 11		Year 4 (2000-01) n = 17		Year 5 (2001-02) n = 5	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Age at Pretest	6.7	0.53	6.6	0.30	6.6	0.36	6.6	0.31	6.4	0.29	6.5	0.40	6.6	0.34	6.6	0.25
Overall Tutoring Instruction																
Highest Lesson Completed: 1-100	--	--	46.5	15.37	44.4	8.85	75.5	16.25	--	--	48.9	9.54	85.8	20.94	85.6	13.09
Program Implementation Fidelity by Observation: 0-100%	0.76	0.18	0.88	0.12	0.91	0.09	0.99	0.00	0.96	0.04	0.98	0.03	0.98	0.02	0.97	0.04
	N	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*
Sex																
Male	31	(67.4%)	20	(45.5%)	23	(62.2%)	6	(50.0%)	15	(60.0%)	6	(54.5%)	9	(52.9%)	4	(80.0%)
Female	15	(32.6%)	24	(54.5%)	14	(37.8%)	6	(50.0%)	10	(40.0%)	5	(45.5%)	8	(47.1%)	1	(20.0%)
Ethnicity																
Caucasian	5	(10.9%)	1	(2.3%)	3	(8.1%)	1	(8.3%)	9	(36.0%)	2	(18.2%)	14	(82.4%)	1	(20.0%)
Noncaucasian	41	(89.1%)	43	(97.7%)	34	(91.9%)	11	(91.6%)	16	(64.0%)	9	(81.8%)	3	(17.6%)	4	(80.0%)
African American	21	(45.6%)	26	(59.1%)	20	(54.1%)	6	(50.0%)	3	(12.0%)	3	(27.3%)	0	(0.0%)	1	(20.0%)
Asian	5	(10.9%)	4	(9.1%)	6	(16.2%)	0	(0.0%)	6	(24.0%)	2	(18.1%)	2	(11.7%)	1	(20.0%)
Hispanic	10	(21.7%)	5	(11.4%)	6	(16.2%)	4	(33.3%)	4	(16.0%)	1	(9.1%)	0	(0.0%)	2	(40.0%)
Other	5	(10.9%)	8	(18.2%)	2	(5.4%)	1	(8.3%)	3	(12.0%)	3	(27.3%)	1	(5.9%)	0	(0.0%)
Special Instruction/Classification																
Limited English Proficiency (ESL)	16	(34.8%)	30	(68.2%)	13	(35.1%)	3	(25.0%)	6	(24.0%)	5	(45.5%)	4	(23.5%)	0	(0.0%)
Special Education	4	(8.7%)	--	--	0	(0.0%)	0	(0.0%)	1	(4.0%)	1	(9.1%)	0	(0.0%)	0	(0.0%)

Note: "--" indicates that no data is available for this characteristic.

- ✓ Age: Ages over the years and across the research sites varied little, with the average age being 6.6 and 6.5 years for Powerful Schools and Viewlands School, respectively.

- ✓ Gender: Gender proportions also varied little over the years, with a slight tendency for more male students to be tutored than females. However, two-thirds of the students served at Viewlands Elementary were male as compared to Powerful Schools, which served roughly equal proportions of male and female students.

- ✓ Minority Status: Nearly all tutored students at Powerful Schools were identified as minority, compared to roughly two-thirds of the tutored students at Viewlands School. This is not surprising, given that the minority population at Powerful Schools in 2001 was 86%, while the population at Viewlands School in the same year was 47%. Thus, a higher proportion (67%) of minority students was tutored at Viewlands relative to the site's total minority population (47%).

- ✓ English as a Second Language (ESL) Status: Similar to the minority population differences between the two sites, there were higher proportions of ESL students at Powerful Schools compared to Viewlands School. Historically, students identified as ESL have shown excellent gains using the Sound Partners program. Over the last four years, ESL students from Viewlands School gained, on average, 18.4 standard score points from pretest to posttest, with a mean effect size of 1.63. Comparatively, non-ESL students gained an average of 15.3 standard score points, with a mean effect size of 1.37. Similarly, ESL students outperformed non-ESL students at Powerful Schools, with gains of 15.3 and 10.6 and effect sizes of 1.25 and 0.92, respectively.

- ✓ Special Education (SPED) Status: There seemed to be no differences between the sites on students receiving special education services, with roughly 3% of each site's tutored students receiving such services.

Research Site Student Outcomes

Measures

Student outcome data (pretest and posttest) were collected using the Woodcock Reading Mastery Test Revised (WRMT-R) Word Attack and Word Identification subtests (Woodcock, 1989, 1990) to measure decoding and word reading skills, as well as the Wide Range Achievement Test-Revised (WRAT-R) Word Reading and Spelling subtests (Jastak & Wilkinson, 1984) to measure reading and spelling skills. We have used these standardized measures in our research since 1993, allowing us to examine trends over time. These measures also allow comparison with other early reading interventions.

The WRAT-R Reading subtest requires reading increasingly difficult words, naming 13 upper-case letters, and identifying the first two letters in the student's name. The student is then required to orally read words of increasing difficulty. The WRAT-R Spelling subtest requires the student to copy marks, print his or her name, and print a list of dictated words. Each mark copied correctly in less than one minute, as well as the first two letters in the student's name, and each correctly spelled word, are each worth one point. Testing for both subtests is discontinued after 10 consecutive incorrect responses, or until all items are administered. One point was assigned to each correct response. The number of correct items is the student's raw score, which is transformed into a standard score. A standard score of 100 is equivalent to grade-level for both subtests. The internal consistency reliability for seven-year-old students is .95 for the reading subtest, and .92 for the spelling subtest.

The WRMT-R Word Identification subtest consists of 106 words increasing in difficulty, and the WRMT-R Word Attack subtest consists of 50 nonwords increasing in difficulty (containing some within-syllable consonant clusters such as "throbe"). A series of acceptable responses are listed on the easel page for the examiner. For both subtests, testing is discontinued after 6 consecutive incorrect responses. For each subtest, the student's raw score is the total number of correct responses, which is converted into a standard score, with a standard score of 100 equivalent to grade-level. The manual reports a split-half reliability coefficient of .98 for first graders on the Word Identification subtest, and .94 for first graders on the Word Attack subtest.

Data Analysis

We report all pretest and posttest means for both research sites across all project years in Table 4. Paired *t*-tests were performed for each site separately on pretest-to-posttest standard score gains, results from which are also reported in Table 4. We calculated the overall mean standard score gain from all four standardized measures to create Figure 1, which illustrates the mean and standard error for each site's average standard score gain by project year; mean standard error is also reported. Tutoring effect sizes were calculated using Cohen's *d* (.50=medium; .80=large), and are reported in Table 4. Effect sizes were averaged for each site by treatment year, and are plotted in Figure 2.

We also attempted to identify factors contributing to student pretest-to-posttest gains by using regression analysis: 1) by year to capture treatment and cohort differences, and 2) across all years. Variables examined included: student minority, English as a Second Language (ESL), and Special Education status; tutor program implementation fidelity percentages; and students' Sound Partners lesson coverage and tutoring attendance. In Figure 2 we annotate each data point to describe each site's treatment effect sizes in light of the predictors resulting from these analyses (although note that regression analyses were performed on pretest-to-posttest gains).

Results

Student Gains – Across all four project years, students at both research sites showed mean gains of at least 10 standard score points – nearly 2/3 of a standard deviation (Figure 1). Additionally, Table 4 shows that gains made were statistically significant for all measures (for all years). Nevertheless, one of the obvious trends seen in Figure 1 is the increase in student gains from Year 3 (1999-00) to Year 4 (2000-01) at Viewlands School, compared to the relatively flat level of growth in pretest-to-posttest gains for students at Powerful Schools during that period. Since Year 4 was the only year in which there was this large difference in gains between Powerful Schools and Viewlands School, a likely explanation is treatment component variation between the two sites. During Year 4, Powerful Schools continued to use the fluency component from Year 3 (1999-00) *in addition to* the revised lessons prescribed for Year 4 (while Viewlands and other research sites used *only* the revised Year 4 lessons).

To review treatment variations, in Year 3, we had introduced fluency practice to all of our sites, many of which were enthusiastic about this new program component. The reason for their

Table 4

Student Assessment Means and Standard Deviations

Measures[1]	*Powerful Schools*						*Viewlands School*					
	Pretest		Posttest				Pretest		Posttest			
	M	*SD*	*M*	*SD*	$t^{a}_{(2\text{-tailed})}$	d^{a}	*M*	*SD*	*M*	*SD*	$t^{a}_{(2\text{-tailed})}$	d^{a}
Year 2: 1998-1999[2]												
WRMT-R Word Attack	92.7	11.02	109.2	13.78	7.89 ***	1.51	89.2	6.61	104.8	12.52	6.57 ***	1.64
WRMT-R Word Identification	87.5	9.78	103.8	11.85	11.35 ***	2.21	84.2	7.02	100.5	10.81	7.82 ***	1.83
WRAT-R Reading	--	--	--	--	--	--	80.3	7.47	90.7	15.07	3.55 **	.92
WRAT-R Spelling	78.2	11.27	85.4	17.23	3.08 **	.50	72.7	13.23	87.0	17.67	5.32 ***	.92
Year 3: 1999-2000[3]												
WRMT-R Word Attack	89.2	8.82	101.3	8.82	6.28 ***	1.08	87.5	11.20	101.2	14.13	5.68 ***	1.34
WRMT-R Word Identification	85.4	9.71	100.7	11.58	8.94 ***	1.43	87.6	7.37	102.0	14.10	4.65 ***	1.08
WRAT-R Reading	81.7	8.16	90.2	14.94	4.22 ***	.73	80.9	9.95	91.3	16.25	4.05 **	.79
WRAT-R Spelling	72.9	12.64	87.2	15.49	5.34 ***	1.01	77.0	13.09	86.9	19.21	2.79 *	.61
Year 4: 2000-2001[4]												
WRMT-R Word Attack	89.5	8.01	103.1	10.89	8.68 ***	1.44	87.6	7.83	112.2	12.39	9.92 ***	2.43
WRMT-R Word Identification	86.2	11.24	99.4	12.62	7.68 ***	1.11	86.7	9.08	107.8	12.66	11.31 ***	1.94
WRAT-R Reading	79.9	10.35	89.8	14.66	5.72 ***	.79	81.8	9.46	103.4	15.98	6.32 ***	1.70
WRAT-R Spelling	73.0	14.36	85.5	17.35	5.39 ***	.79	79.4	15.03	94.2	18.30	4.66 ***	.89
Year 5: 2001-2002[5]												
WRMT-R Word Attack	86.0	7.12	106.4	9.96	7.32 ***	2.39	88.2	10.47	110.6	6.84	3.23 *	2.59
WRMT-R Word Identification	84.3	9.42	102.4	10.21	5.29 ***	1.84	84.4	6.88	105.2	2.77	7.08 **	4.31
WRAT-R Reading	82.1	7.60	95.8	9.93	5.43 ***	1.57	81.8	4.27	98.2	8.23	3.22 *	2.62
WRAT-R Spelling	75.3	16.71	88.4	16.71	2.82 *	.79	75.4	8.82	93.8	10.35	4.49 *	1.92

[1] WRMT-R is Woodcock Reading Mastery Test Revised, and WRAT-R is Wide Range Achievement Test Revised; all scores are standardized (adjusted for age).

[2] Powerful Schools n = 46, df = 45; Viewlands School n = 25, df = 24.

[3] Powerful Schools n = 44, df = 43; Viewlands School n = 11, df = 10.

[4] Powerful Schools n = 37, df = 36; Viewlands School n = 17, df = 16.

[5] Powerful Schools n = 12, df = 11; Viewlands School n = 5, df = 4.

[a] T-test *t* and Cohen's *d* based on pretest-to-posttest gain score means and standard deviations.

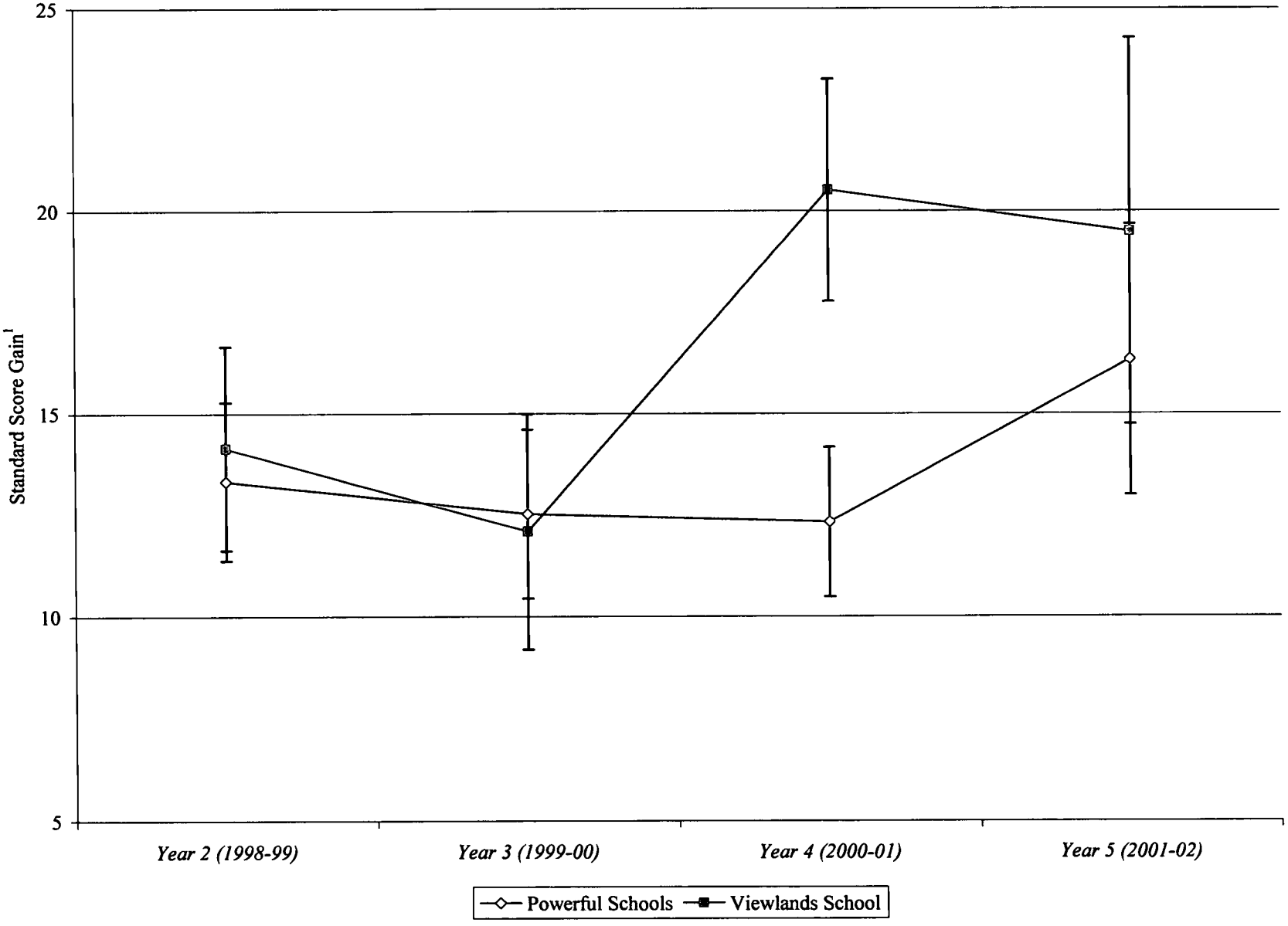
* $p \leq .05$.

** $p \leq .01$.

*** $p \leq .001$.

Figure 1

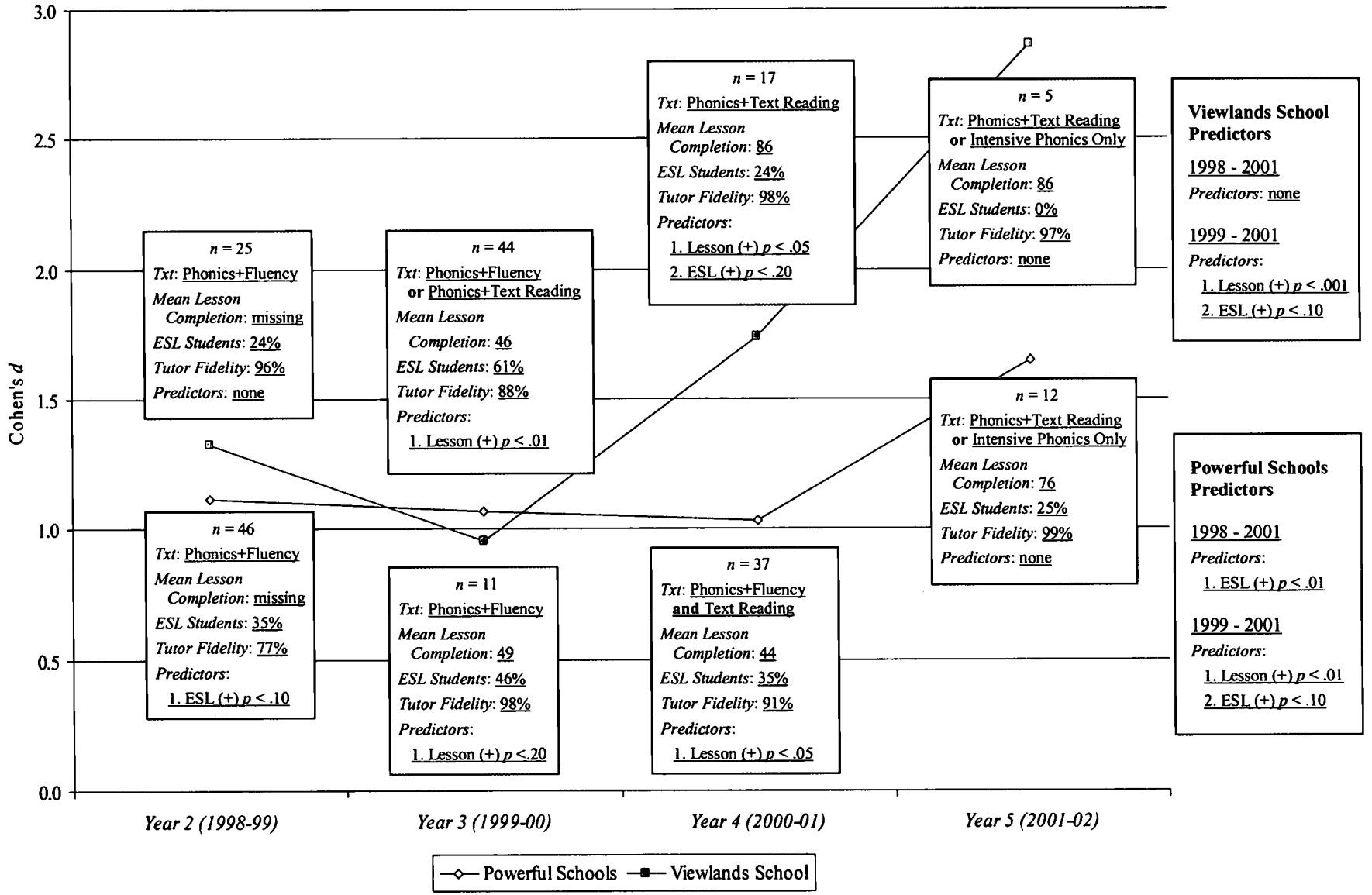
Mean Pretest-to-Posttest Gains by Research Site



[1]Means and standard error bars represent averages of gains on four standardized measures (WRMT-R Word Attack and Word Identification subtests, and WRAT-R Reading and Spelling subtests).

Figure 2

Mean Tutoring Effect Sizes by Research Site



[1]Mean effect sizes represent averages of gains on four standardized measures (WRMT-R Word Attack and Word Identification subtests, and WRAT-R Reading and Spelling subtests).

interest in fluency practice is twofold. First, during the timeframe of the sustaining project, all district schools came under increased pressure to prepare students for state reading assessments. Second, a local private school, Morningside, contracted with several Seattle district schools, including one of the schools at our Powerful Schools site, to raise their reading scores. From this partnership, the Morningside program became associated with increased reading scores at schools where the Morningside program was implemented. There was a particularly strong, and positive, association with fluency practice, since one of Morningside's instructional components was fluency practice at the letter, word, and text levels (much like our Year 3 Sound Partners fluency practice component).

Although our Sound Partners student outcomes in Year 3 did not support the effectiveness of added fluency practice (for first-graders in the lowest 25th percentile of reading skills), Powerful Schools chose to continue using the fluency component from the previous year in addition to the new (Year 4) lessons we provided. This added fluency practice necessarily took time away from the phonics-based instruction, and slowed student progress in completing Sound Partners lessons, since completion of the fluency practice component added 12 to 15 minutes to each lesson. As shown in Figure 2, regression analyses revealed that greater Sound Partners lesson coverage predicts better reading outcomes. Consistent with these findings, students who received fluency practice during Year 4 at Powerful Schools had lower pretest-to-posttest gains than those at Viewlands School (Figure 1). Once we pointed out these differential outcomes to their staff, Powerful Schools agreed to use the updated Sound Partners lessons, which no longer included fluency practice. As seen in both Figures 1 and 2, student gains and treatment effect sizes at Powerful Schools increased dramatically in Year 5 (2001-02), along with mean lesson completion increasing from 44 lessons in Year 4 to 76 lessons Year 5.

Effect Sizes – Treatment effect sizes illustrated in Figure 2 indicate large tutoring effects for both sites in all years of the study. There is an obvious trend in Year 5 for Viewlands to have a much higher overall mean effect size than Powerful Schools; this particular trend is difficult to interpret since the small sample size (n = 5) at Viewlands School during that year may be influencing the effect size calculation. Similar to gain score growth shown in Figure 1, the overall mean effect size at Powerful Schools increases dramatically from Year 4 to Year 5.

Predictors – Results from regression analyses are summarized in Figure 2 annotation boxes, (although regression analyses were actually performed on student pretest-to-posttest gain scores

shown in Figure 1). Importantly, student ESL status and Sound Partners lesson coverage were the only predictors of student outcomes; no other student, school, or tutor characteristic was predictive of pretest-to-posttest gains. In Year 2 (1998-99), ESL status for Powerful Schools was the only nearly significant predictor of student achievement ($p < .10$); students identified as ESL learners had greater gains than those who were not ESL learners. (Unfortunately, data was not collected for Sound Partners lesson completion in Year 2, which may have also had an effect on student outcomes.) In Year 3 (1999-00), the only predictor of student outcomes at either research site was lesson coverage, although it was not a significant predictor for outcomes at Viewlands School site. Year 4 (2000-01) showed lesson coverage to be a significant predictor for outcomes at both sites, ($p. <.05$), while Year 5 (2001-02) had no significant predictors. After pooling all project years together (Years 2 - 5), lesson coverage was a positive, significant predictor of student outcomes at both research sites (Viewlands School, $p < .001$, and Powerful Schools, $p < .01$). Additionally, both sites show ESL status to be a positive, albeit nonsignificant, predictor ($p < .10$).

These regression findings on lesson coverage confirm our onsite observations on the positive relationship of instructional coverage to student outcomes. We have revised tutor supervision procedures to encourage tutors to maintain a steady pace of Sound Partners lesson coverage, and to refrain from unnecessary instructional review, since review cycles are built into the lessons. We emphasize this information in training, since it seems counterintuitive for some tutors (those who either have difficulty detecting student progress, or who are inclined to hold a student back in lesson material that the student has already mastered). This is an important finding for others who supervise paraprofessionals. Our experience suggests that paraprofessionals typically have less training and experience than teachers in identifying a student's zone of proximal development (where students can achieve success on literacy tasks with adult scaffolding and practice). We have found, however, that when training and materials are designed specifically for paraprofessionals to allow them to compensate for their lack of experience, paraprofessionals can be successful tutors, and gradually acquire the skills needed for appropriate scaffolding and pacing.

We were not surprised to find that tutor fidelity was *not* predictive of student outcomes since we had a ceiling effect of 100% on our on-site tutor observations. We feel that the design of training and materials for the Sound Partners program has enabled tutors to follow the program

consistently (and easily). Further, both sites made decisions to remove tutors who could not follow the program accurately. Therefore, strong tutor fidelity in our sustaining project demonstrates that well-equipped paraprofessional tutors are very capable of effectively supplementing reading instruction in critical, phonics-based decoding skills.

Dissemination of Project Findings

We will continue to include data from this project in our future publications. Attached in Appendix E is a draft of a chapter, originally written as part of the proposed cross-project monograph. The chapter discusses how to involve tutors in efforts to supplement reading instruction. Appendix F includes a copy of an article published in *Learning Disabilities Research & Practice* in which we discuss some of the findings on tutoring implementation described in this report.

IV. Discussion: Implications for Sustained Program Replication

The adoption of a supplementary one-to-one tutoring program must take place on many levels for it to sustain in a school. Throughout the years of Sound Partners program development, we have refined content and criteria for effective use of the program. We have also identified several characteristics of successful implementations.

Tutors

Initially, administrators at Powerful Schools attempted to have Sound Partners meet two of its broader objectives – to raise reading levels for at-risk students in their schools, and to provide a paid source of school involvement for low-income parents in the school community. It soon became clear that Sound Partners could not meet both of these objectives without compromising the quality of tutoring that students received. They needed to recruit tutors who had the skills to provide consistent, reliable instruction, and this became their primary criteria for tutor recruitment. Thus, the Sound Partners research team and the Powerful Schools collaborated to identify essential components of a successful program and align the mission of the coalition with the intervention.

Viewlands School came to the Sound Partners program with a group of experienced parent tutors who had already demonstrated a high level of commitment to the school. The principal recruited parents who wanted to work in the school and who showed an interest in helping kids. When recruiting tutors, she carefully looked at candidates' educational levels as well as their willingness to learn and comply with a scripted program. Most of the tutors at the school have been using Sound Partners for three years, and turnover is low. By including the tutors in the school's reading staff, the Viewlands School Principal has made teachers more aware of the tutor's contributions, and has likely increased the job satisfaction and retention of tutors.

School-level and Teacher Support

The two sites also differed in the building-level support for the Sound Partners program. One of the biggest challenges in offering Sound Partners at the Powerful Schools was the lack of active teacher and principal support. The fact that Powerful Schools' administration staff assumed responsibility for funding and managing Sound Partners in the four schools meant that

the four principals at the schools did not need to be directly involved in program implementation. Thus the principals of the four schools were more removed, as were the teachers, from actively advocating for and administering their Sound Partners programs. Rather than freeing school staff time to attend to the instructional issues of coordinating Sound Partners with classroom reading instruction, the Powerful Schools responsibility for Sound Partners served to distance the school staffs from the program. Sound Partners was simply not on the radar screen of most of the Powerful Schools principals as it was in the individual replication sites where the principal and key classroom staff were responsible for funding the programs. Furthermore, during the sustaining project, the Powerful Schools experienced high levels of principal and classroom staff turnover. Two of the schools at the Powerful Schools site had three different principals between 1997 and 2002, and the other two schools at the Powerful Schools site had two different principals during that period. Additionally, one school at the Powerful Schools site had over 40% of the classroom staff turn over in one year's time. With these staff changes, it was difficult to get all teachers on board with scheduling the tutoring sessions. Powerful Schools staff found that the teachers needed proof of the benefits of the program before they were willing to see it as an essential instructional component for their students.

Scheduling drives programming at most schools, however scheduling Sound Partners tutoring for students who were already being pulled out of class for other services did not present a significant challenge to any of our sites. To accommodate Powerful Schools' teachers, Sound Partners tutoring was scheduled around gym classes, computer, and library. For all sites, tutoring schedules were flexible to adjustments due to tutor, teacher, and school schedules. In the early stages of this sustaining project, teachers would not allow students to attend their tutoring instruction if a special project arose or if the student was misbehaving, which meant that students missed their much-needed reading tutoring, and tutors were left without a student to work with for the 30 minute time period. Once teachers realized that space had been reserved for serving their neediest students, teachers became more supportive of adhering to the tutoring schedule. Additionally, with adequate notice, tutors were able to switch student time slots or have "substitute" students to work within special situations or extenuating circumstances (e.g., student absences and classroom testing).

In part because the Viewlands School principal worked on scheduling with the entire group of primary classroom teachers, the school devised an effective scheduling system. All students

receiving tutoring were taken from one teacher's classroom at the same time, allowing the teachers to structure their schedule and reading instruction based on the time that Sound Partners students were receiving their tutoring instruction. This arrangement reduced the number of classroom disruptions, allowed classroom to teachers to fit Sound Partners into their instructional plans, and insured that students were not singled out. Additionally, this system reduced class size allowing teachers to work more intensely with the remaining students.

Space

One of our first discoveries in helping schools use Sound Partners was how little space schools had available for supplemental programs such as ours. Initially, in the Powerful Schools, tutors had to use whatever space they could find each day, including hallway corners, supply rooms, and the school stage. Often, tutors and students had to relocate mid-lesson (when the space was needed for other activities), and students were constantly distracted by noise. Because of the frustrations with finding appropriate space, tutors felt that they were not valued, they lacked the support of having a consistent environment for their students, and they felt isolated. After our discussions to problem-solve the issue with Powerful Schools' staff, they found a large room where all tutors could work with their students at separate desks. This made a positive change in the program: staff recognized the tutors as part of the school program; tutors were accountable and easily located; and consequently, tutors felt more valued. The common space allowed the tutors to help each other with behavior issues, instructional questions, and gave them easier access to tutoring materials.

The program coordinator at the Powerful Schools site reported the following: "Securing space so that all tutors are together has made the working environment for the tutors more pleasant and less isolated. Together they are held accountable, provide behavioral support, and save on transition time so that we can give students 30 minutes worth of tutoring each day instead of wandering in the halls to find a spot to tutor."

When Viewlands added the Sound Partners program, the principal looked for space that was easily accessible, visible, and quiet enough to provide one-to-one instruction with minimal distractions. The layout at Viewlands is one-story classroom buildings connected by breezeways. The main hallway near the office was selected as the most convenient and central location. One side of the hallway was lined with workstations facing the wall. The location was central enough

that it was between the two wings of the school where student classrooms were located, and minimal time was required for transition to the tutoring sessions. Tutors were a visible part of the school from the start. In addition, the hallway used for tutoring offered convenient access for behavioral support from other tutors, office staff, and the school principal. The principal provided and painted multicolor tables and chairs for the tutor-student pairs.

Ongoing Feedback and Improvements of the Model Program

We have been fortunate to have the unique opportunity to continue to refine Sound Partners throughout our sustaining project. All programs have to continue to grow and improve or die out. This refinement has been part of the work on our concurrent Field Initiated Research project, in which we have systematically studied variations in tutoring instruction. For example, the fluency component used during part of the sustaining project was carefully studied in our FIR project and found to be less effective than time spent on phonic-based instruction. Although it was difficult to convince the Powerful Schools to abandon the fluency practice, the outcome data indicate that student gains increased when Powerful Schools followed our recommendations to use only the phonic-based instruction. The type of reading text (more or less decodable) that afforded the most beneficial reading practice during Sound Partners lessons was another focus of research in the FIR project grant, and findings from this research have been incorporated into lesson revisions we share with all sites. Other refinements have been the result of taking feedback from our tutors and incorporating it into added instruction or changes in the delivery of instruction that have made for a stronger Sound Partners program. Although the basic components of the Sound Partners lessons have not changed significantly during the sustaining project, the opportunities we have had to continually refine the program have undoubtedly contributed to increases in its effectiveness. In particular, the increased explicitness of phonics instruction we have added as a result of tutor feedback and our observations is most likely to benefit the least skilled students who most need this level of explicitness in order to become good readers.

Commitment and Involvement School or Site Leader

As others who have studied the research-to-practice transition have reported (Boudah, Logan, & Greenwood, 2001; Klingner, Vaughn, Hughes, & Arguelles, 1999) the commitment of the principal or another school leader was essential to sustaining Sound Partners. During the

sustaining project, we attempted to obtain support at the district level for replicating Sound Partners. However, for various reasons, among them differences in reading philosophies, and reductions in district funding for supplemental programs, we were unsuccessful in finding a district-level advocate. We had somewhat more success at the state level, where Sound Partners was added to the state's list of effective, research-based practices eligible for funding in state reading grants. Thanks to the support of our state's reading director, during the 2001-2002 school year, our staff provided training to 9 of the 30 sites across the state that received state Washington Reads grants. The schools eligible for these grants were those with the lowest reading scores in the state, and the director of the state's reading programs is strongly supportive of Sound Partners and continues to refer schools for training.

As we noted, dissemination of Sound Partners has not required district-level support. Most often successful dissemination and implementation have been due to the principal's investment in the program. At the Powerful Schools, continuity of support has come from the organization's leadership (Executive Director and Sound Partners Coordinator). In all cases, successful replication involves a school leader who can address the major implementation challenges. This person has a role in finding funds for the program, coordinating the program with the school's reading program, fitting the program into the school schedule, and keeping the program visible and on the site's radar screen.

Energy and Funding

A supplementary program like Sound Partners does not run itself. In most schools it requires a part-time program coordinator. Powerful Schools discovered that a full-time coordinator and lead tutor were needed to maintain the program's operation. The coordinator took on the responsibility of seeking and hiring reliable, quality tutors. This included posting flyers and canvassing school neighborhoods and community members for support. The coordinator is needed to screen tutors, and create a back-up plan for substitutes. Schools need structure to oversee tutors, attendance, payroll, and develop a schedule that satisfies the needs of the classroom staff as well as at-risk students.

One of the areas in which the coordinator supports the tutors is behavior management. Soon after we first began serving an at-risk population with nonteacher tutors, it became evident that we needed to provide tutors with behavioral supports. After all, most tutors lack the training that

teachers receive in behavior management. It often became the coordinator's responsibility to develop tutoring procedures that are in line with the school's policies on student behavior. The coordinator worked to facilitate communication between tutors and teachers so that teachers could support tutors and reinforce the importance of following tutor directions and behaving appropriately during tutoring. Consistent expectations for behavior helped create enforceable consequences the tutors could use when students behaved inappropriately. As tutors became more proficient in lesson delivery and in maintaining an engaging pace for students, behavioral concerns often decreased.

At Viewlands School, Sound Partners coordination was shared by the principal and a highly experienced group of tutors. At Powerful Schools, the program coordinator's position became full-time in 2001. In addition, lead tutors at each of the four schools making up the Powerful Schools coalition took on the role of observing and coaching tutors. This freed the program coordinator's time for human resource tasks (tutor recruitment, payroll processing, tutor attendance monitoring, student behavior issues), program coordination and outcomes assessment (tutor/student scheduling, materials and space allocation, tutor training, student progress reports), as well as fundraising activities (mailings, benefit dinners, parent-teacher association meetings). Based on our experience disseminating Sound Partners, we have found that it takes a coordinator approximately two hours per week to supervise six tutors.

Fundraising for tutor salaries at Powerful Schools was assumed by Greg Tuke, the nonprofit's executive director and over the years Sound Partners has become one of their line items. At Viewlands School, the principal was responsible for fundraising, and to date there is no regular, reliable funding source for tutor salaries.

Raising funds each year to maintain these parent tutors was the Viewlands School's biggest challenge. Initially Viewlands got plenty of Title I money, but with the end of busing and the change in demographics, students who need extra support are still present, but the money for Title I and LAP to purchase the help needed is not. The school has relied on soft money for funding Sound Partners for the past two years. The principal at Viewlands used building discretionary funds, private grants, and implemented fundraising to maintain the tutor salaries. Funding the tutoring program has been the biggest challenge for Viewlands. All financial support has come from soft money. The principal applied for and received a school district grant which supplied some money for tutor salaries. In addition, she appealed to a local real estate company

whose mission in donating is to help homeless people. She successfully argued that an investment in learning would ultimately decrease homelessness. Each year, Viewlands School continues to solve funding challenges through creative financing and soft money.

Process Reflects Site Changes in Staff and Funding

There is no set formula for implementing a successful Sound Partners program because school settings are dynamic. Staff turnover is a reality that jeopardizes the continuation of all research-based practices. Funding streams come and go. (As we write this report, an expected Seattle School District budget shortfall of $33 million jeopardizes funds that many of our sustaining sites had hoped to use for paying paraprofessional tutor salaries.) School building student populations change. All of these factors influence how a Sound Partners program in a school is implemented. At Viewlands for example, Sound Partners was first implemented to help raise the dismal school-wide reading scores, and to supplement instruction for the school's ESL population. As the school's reading program improved and the student population changed, Viewlands used Sound Partners to serve a somewhat smaller group of higher risk students, and to serve them for up to two years when needed. Funding sources for the program at Viewlands have changed from year to year – more recently including private and district grants, bake sales, and individual donations rather than Title I dollars, which have decreased over time.

Although both Powerful Schools and Viewlands experienced turnover in school staff, both implementations retained the school leaders who were the initial advocates and coordinators for Sound Partners. At Powerful Schools, although principal turnover was high, Greg Tuke, and Valerie Wells remained involved as Sound Partners leaders from 1993 to the present. At Viewlands, both the principal leader, Cathy Profilet, and the majority of the tutors continued with the program from 1998 to the present. Next June, 2003, Cathy Profilet will retire. She has already begun to plan how to ensure Sound Partners continues at Viewlands after she is gone. She knows that a new principal is likely to be overwhelmed trying to learn the basics of Viewlands management during the first year at the school. Therefore, this year Cathy is involving the new school librarian, who is young, enthusiastic, and passionate about reading, to learn how Sound Partners works at Viewlands. Cathy hopes that by next fall, 2003, the librarian will be able to take on most of the responsibility for overseeing the Sound Partners program at

Viewlands. School-wide support and leadership, funding, and quality tutors are just some of the essential components necessary to keep a program like Sound Partners running effectively.

Schools are often unable to sustain research-based programs when federal funding ends and the researchers leave. As we were developing Sound Partners, we evaluated the program in fieldtest sites and sought ongoing input from intended users – schools and tutors. The instructional content of the program underwent dozens of revisions in response to tutor feedback and fieldtest data. We learned about the requirements for successful implementation from the sites using Sound Partners. With larger implementations like Powerful Schools, a more substantial infrastructure is needed, both for funding and for ongoing program oversight. Individual schools that serve a small number of students require less infrastructure. Because we have had the benefits of multi-year federal funding, we have been able to gather information on implementation variations and share it with new sites that request training in Sound Partners procedures. As we complete this report, we are preparing an Outreach application that will support, in part, continued no-cost Sound Partners training for sites throughout the Northwest. Letters shown in Appendix G document the support for this training by educators who served a large number of students at risk for reading failure.

Applied research partnerships are encouraged by funders, but partners in these collaborations often don't have the opportunity to weigh in, after all is said and done, on the cost-benefit analysis. Obstacles to field-based research have been discussed recently by Doug Fuchs (Fuchs et al., 2001), including the costs of conducting research and housing it in a school district. The research on Sound Partners required hundreds of visits by our staff to train, coach, and observe tutors. The research required that schools allow us to select students for intervention. Classroom teachers made time to meet with our staff and assist in student identification and screening. By accommodating our visits, the schools enabled us to monitor tutoring fidelity, conduct comprehensive student assessments, and identify program implementation requirements. Our research sites learned to trust and value our staff's contributions and suggestions. Yet as student testing requirements increase, it becomes more difficult for schools to allow researchers to add to the student assessment burden. Research on programs like Sound Partners becomes more difficult to conduct.

Our decade-long partnership with Seattle elementary schools has enabled our team of researchers to develop a tutoring program that incorporates research-based practices in early

reading instruction, and that can be used by nonteacher users to effectively supplement classroom instruction in critical early reading skills. A program like Sound Partners could not be tested without the collaboration and support of the principals, teachers, staff, students, and parents at our fieldtest sites. It is gratifying that as we look back, both we the researchers and the schools believe these school efforts were justified. As Greg told us in his interview, Powerful Schools continues to fund and support Sound Partners because "it's our best program for showing proven academic improvements." Researchers could not wish for a stronger testimonial from school partners for the value of this research collaboration.

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PROFESSIONAL EXPERIENCE

1989-present **Washington Research Institute, Seattle, WA**
Principal Investigator, Model Demonstration Project for Children with Disabilities
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"Sustainability of Promising Innovations"

Principal Investigator, Research in Education of Individuals with Disabilities
U.S. Department of Education, 1993-1997
"Including Children with Disabilities as a Part of Systemic Efforts to Restructure Schools"

Principal Investigator, Field Initiated Studies
Office of Educational Research and Improvement
U.S. Department of Education, 1991-1992
"Minority Students with Disabilities in the Small Rural School District"

Project Coordinator, Head Start Research Project
U.S. Department of Health and Human Services, 1990-1991
"Variations in Service Delivery Models in Region X"

Principal Investigator, Synthesis and Dissemination Project
U.S. Department of Health and Human Services, 1989-1990
"Evaluation of Child Abuse Prevention Projects"

1979-1989 **University of Washington, Seattle, WA**
Child Development and Mental Retardation Center
Project Manager, Early Childhood Special Education

EDITORIAL BOARDS

- ✓ American Educational Research Journal
- ✓ Guest Reviewer, Learning Disabilities Research and Practice

PROFESSIONAL SERVICE

- ✓ Grant Reviewer, Office of Special Education Programs, 1993-2002.
- ✓ Grant Reviewer, Office of Maternal and Child Health, U.S. Public Health Service, 1989.
- ✓ Grant Reviewer, March of Dimes Research Grant Programs, 1988.

PUBLICATIONS

Books

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Meyer, D. J., & Vadasy, P. F. (1994). *Sibshops: Workshops for siblings of children with special needs*. Baltimore, MD: Paul H. Brookes.

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Presentations

"The SEFAM curriculum for fathers of young children with handicaps." American Association of Mental Deficiency Regional Meeting, Vancouver, BC, November, 1981.

"Families of young handicapped children." Handicapped Children's Early Education Program/Division of Early Childhood Annual Conference, Washington, DC, December, 1982.

"Grant writing for early childhood program directors." Early Childhood Management Institute, Seattle, Washington, September, 1985.

Grant writing workshop for state and local education staff. South Atlantic Regional Resource Center. Austin, TX, April, 1992.

Interview with Frank Catalano, "Healthnet" show, KING-AM radio, "Living with a brother or sister with special needs," July, 1986.

"The Yakima Equity Study: Major findings." Washington State Staff Development Council, March, 1993.

"Effects of community tutor delivered one-to-one phonological skills training on high risk first graders." Paper presented at the Third Annual Pacific Coast Research Conference, Laguna Beach, CA, February, 1995.

"Build them and they will come, or will they?" Panel presented at the Fourth Annual Pacific Coast Research Conference, La Jolla, CA, February, 1996.

"Teaching young children who lack critical phonological and early reading skills: Delivery, measurement, and myriad implementation issues." Paper presented at the Fifth Annual Pacific Coast Research Conference, La Jolla California, February, 1997.

"Predicting reading disabilities." Summer Institute, Washington State Association of School Psychologists, Seattle University, Seattle, WA, July, 1998.

"Early reading assessment and intervention." International Dyslexia Association, Washington Branch, Fall Conference, November, 2001.

TRAINING

- ✓ One-day training sessions in Sound Partners tutoring instruction (1995-present) including the following public school districts, and universities, private schools: Seattle, Highline, Issaquah, Edmonds, Sedro Wooley, Lummi Island, Methow Valley, West Valley (Spokane), Spokane, St. Therese, Seattle Hebrew Academy; Arizona State University, Eastern Washington University.

- ✓ Staff development in early reading acquisition, Seattle School District, 1999-present.

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1996 **Ephesus Elementary School, Chapel Hill, NC**
Learning Disabilities Program, Special Education Resource Teacher

1995-1996 **Grant Elementary School, Spokane, WA**
Special Education Resource Teacher

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Student Teacher (one early childhood, two elementary, and one high school)

PROFESSIONAL SERVICE

- ✓ Grant Reviewer, State of Nevada Reading Projects, 2002.
- ✓ Board Member, International Dyslexia Association, 2002.

PUBLICATIONS

Curricula

Vadasy, P. F., Wayne, S. K, O'Connor, R. E., Jenkins, J. R., Pool, K., Firebaugh, M., & Peyton, J. A. (2002). *Sound Partners: A one-to-one tutoring program in early reading skills.* Unpublished manuscript. Seattle, WA: Washington Research Institute.

Articles

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Jenkins, J. R., Vadasy, P. F., Peyton, J. A., & Sanders, E. A. (2002). *Decodable text: What it is and where to find it.* Manuscript submitted for publication.

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Presentations

"Early Literacy Instruction." Inservice Training, Sanislo Elementary, Seattle, WA, October, 2001.

"Sound Partners Tutoring Program." Seattle School District and Seattle Catholic Archdioses schools, 1998-2002.

"Does Text Type Matter in a Supplementary Reading Program?" Annual Project Directors Meeting, Office of Special Education Projects, Washington, DC, July, 2001.

"Outcomes in Sustaining an Effective Tutoring Program." Sustainability Conference, Office of Special Education Projects, Eugene, OR, June, 2000.

"Sound Partners Tutoring: Supplemental One-to-One Instruction in Phonological Awareness and Early Reading Skills for At-Risk First Graders: Effects on Student Outcomes When Research Sites Become Sustaining Sites." Annual Project Directors Meeting, Office of Special Education Projects, Washington, DC, July, 1999.

PROFESSIONAL AFFILIATIONS

- ✓ American Education Research Association, 1997-2001.
- ✓ Council for Exceptional Children, 1992-2002.
- ✓ International Dyslexia Association, 2002.
- ✓ Society for the Scientific Study of Reading, 1997-2002.

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1997-1999 **University of Washington, Seattle, WA**
Psychology Department
Cognitive Psychology Labs: S. Joslyn, L. Katz, E. Loftus, and Y. Shoda
Undergraduate Student Researcher/Student Teaching Assistant

1995-1997 **BERGER/ABAM Engineers Inc., Federal Way, WA**
Marketing Coordinator

1993-1995 **AKB Engineers, Inc., Seattle, WA**
Marketing Coordinator

PUBLICATIONS

Jenkins, J. R., Peyton, J. A., Sanders, E. A., & Vadasy, P. F. (2002). *Effects of reading decodable texts in supplemental first-grade tutoring.* Manuscript submitted for publication.

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Sanders, E. A., Pickrell, J. E., & Loftus, E. F. (1999). Thanks for the Memories: The effect of mere exposure on episodic memory. Presented at the American Psychological Society Annual Convention, Boulder, CO.

PROFESSIONAL AFFILIATIONS

✓ American Psychological Society, 1999-2002.

Appendix B

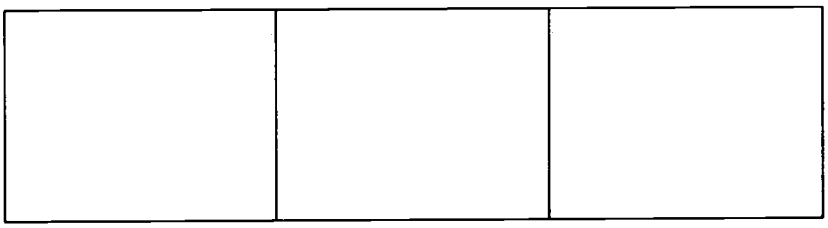
e E
elephant

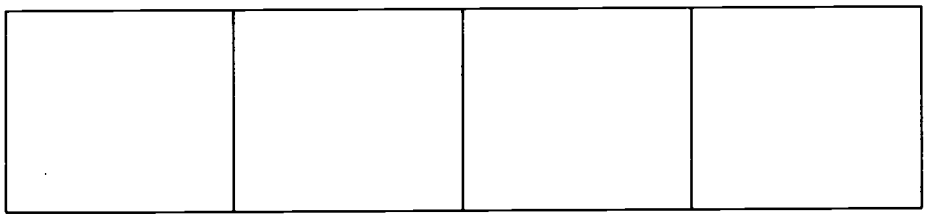
e	s sun	f fish	t table
d dog	p pig	e	u umbrella
e	R rat	f	c cat
U	j jet	e	b ball

Say the Sounds

"Point to each letter. Say the sound."

(Paper)
"Write the letter that makes the _____ sound."





Segmenting
Do either:
"Break this word into three parts."

pot cap hit
bog rag

"Break this word into four parts." Tutor model 4-part to introduce.

pots caps hits
bogs rags

pet pet hen jet rip jug pit sap jig fin dug wag rub wet tip nut cob	**Word Reading** "Sound these out and say them fast." Select several words: "What does _____ start with?" "What does _____ end with?" "What is the middle sound in _____?" (Paper) "Now you spell _____." Choose three words for student to spell and read.
into is into for of or can't into isn't	**Sight Words** "This word is ____." "You read it." "Point and spell." "What word?" Have student read, point and spell, then reread each word. (Paper) Dictate three words for student to spell and read.
Peg hops into bed for a nap.	"Read this sentence. Point to each word."
	Book Reading Read 10 Cut Ups.

Appendix C

SOUND PARTNERS 2001-02

Tutor Observation Form

(formerly Criteria for Tutor Implementation)

Tutor: _____
Student: _____
Lesson: _____
School: _____
Observer: _____
Date: _____

Directions

1. *If the tutor skips the component criteria but should not have, mark with an "X" in the space provided.*
   Do not mark any other columns (such as the "Observed?" or "Obs Score" columns -- "not observed" is assumed).
2. *If the observer arrives late (or if the criteria is not applicable at the time), and does not observe the component criteria, and the tutor did not actually skip the component, circle the "N" for "not observed" in the space provided.*
   Do not mark any other columns (such as the "Tutor Skipped" or "Obs Score" columns).
3. *If the observer observes the component criteria, circle the "Y" for "observed" in the space provided. Then score the "Obs Score" column by circling the "1" if the tutor implemented the criteria correctly, and "0" if implemented incorrectly.*
   Do not mark the "Tutor Skipped" column.

Component	Tutor Skipped (X = yes)	Observed? (if "X" on skip, do not mark)	Obs Score (mark only if "Y" on Observed)	Criteria
Talking Letters		N Y	1 0	Models and has student practice letters-to-sound matching appropriately (for reading)
		N Y	1 0	Models and has student practice sound-to-letters matching appropriately (for spelling)
		N Y	1 0	Chooses letter sets that student needs to practice
		N Y	1 0	Fades using word/picture when student knows sound
				Notes:
Say the Sounds		N Y	1 0	Models correct sounds
		N Y	1 0	Detects and provides practice on weak sounds
		N Y	1 0	Says the sound for student to write (one new sound and three difficult sounds)
				Notes:
Segmenting		N Y	1 0	Has student point to each box when segmenting
		N Y	1 0	Models correctly if student cannot do (say word, segment word, say word)
		N Y	1 0	Requires student to complete task by *listening* to word, not reading it
				Notes:
Word Reading		N Y	1 0	Models sounding out without stopping between sounds
		N Y	1 0	Has student sound out words without stopping between sounds
		N Y	1 0	Directs student to difficult sound in word
		N Y	1 0	Has student spell 3 words or new sound(s) or difficult sounds
		N Y	1 0	Provides added practice on difficult words when needed (first sound, last sound, etc.)
				Notes:
All Spelling Tasks		N Y	1 0	Requires student to apply sounding out
		N Y	1 0	Has student read all written words
		N Y	1 0	Provides added practice on difficult words when needed
				Notes:
Sight Words		N Y	1 0	Models new word
		N Y	1 0	Requires student to read and orally spell word
		N Y	1 0	Has student spell 3 words in writing
		N Y	1 0	Provides added practice on difficult words when needed
				Notes:
All Sentence/ Text Reading Tasks		N Y	1 0	Requires student to fingerpoint
		N Y	1 0	Requires student to reread any sentence with error (added practice)
		N Y	1 0	Requires student to use sounding out when needed
				Notes:

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Tutor Observation Form

(formerly Criteria for Tutor Implementation)

Component	Tutor Skipped (X = yes)	Observed? (if "X" on skip, do not mark)	Obs Score (mark only if "Y" on Observed)	Criteria
Silent -e-		N Y	1 0	Follows lesson sequence and provides added practice on each step of rule
		N Y	1 0	Corrects by reminding student of the rule/letter positions
		N Y	1 0	Provides added practice when needed
				Notes:
Word Endings		N Y	1 0	Models by pointing and saying word with ending
		N Y	1 0	Has student say words with ending
		N Y	1 0	Corrects by reminding student to say word with/without ending
				Notes:
Pair Practice		N Y	1 0	Dictates sounds first for student to spell
		N Y	1 0	Has student read and spell words/nonwords
		N Y	1 0	Corrects by pointing to letter pair or by using Talking Letters
				Notes:
Book Reading		N Y	1 0	Has student read book from previous lesson once
		N Y	1 0	Has student read book from current lesson twice
		N Y	1 0	Scaffolds appropriately
				Notes:
Word List		N Y	1 0	Maintains up-to-date, accurate record of practice words
		N Y	1 0	Marks word C, 1, or 2 correctly
		N Y	1 0	Corrects by providing the word, and having student read, spell, and say word
		N Y	1 0	Requires student to read/spell corrected words
				Notes:

Directions

Mark "Y" for "yes" or "N" for "no" in the appropriate box. If criteria was not observed, leave both boxes blank.

Use of Time	Y	N	Notes
Tutor has materials organized			
Starts on time			
Transitions smooth/quick			
Allocates time as directed			
Paces lesson briskly & efficiently			
Tutors full 30 minutes			
Uses time for Sound Partners instruction only			
Follows Sound Partners instructions			
Tutor Instruction	**Y**	**N**	
Corrects all errors immediately			
Corrects without negative comments			
Uses specific praise effectively			
Maintains brisk, engaging pace			
Records all required student data			
Effectively motivates student			
Scaffolds tasks appropriately			
Provides appropriate practice/review			

Appendix D

Powerful Schools Website: www.powerfulschools.org

Viewlands School Website: www.seattleschools.org/schools/viewlands/

Appendix E

DRAFT CHAPTER FOR PROPOSED MONOGRAPH: INCLUDING CHILDREN WITH DISABILITIES AS A PART OF SYSTEMIC EFFORTS TO REFORM SCHOOLS

Including Tutors in Effective Reading Instruction

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Introduction

Tutoring is viewed as a means of supplementing early reading instruction in our nation's schools. President Clinton's America Reads Challenge directly addresses the 40% of fourth graders who read below the basic level set by the National Assessment of Educational Progress (NAEP) (1994). The challenge acknowledges that classroom teachers will require help to reach all of the students who need supplementary reading instruction. Yet what evidence is there that the proposed army of 1 million volunteer tutors will be able to accomplish this goal?

Tutoring is generally considered the strongest form of instruction (Bloom, 1984), and reading specialists in schools and clinics often assist individual students with reading problems. The efficacy of certificated reading specialists who provide tutoring, however, does not allow us to extrapolate to nonprofessional tutors. Wasik (1998a) reviewed the research on achievement outcomes of one-to-one tutoring by volunteers and found that most of these programs have not been systematically evaluated (i.e., using experimental and control groups). The empirical base for a national policy of using volunteer tutors to improve reading achievement is only beginning to be constructed. Will schools be able to utilize tutors to supplement the reading instruction of students, including those who may be identified as learning disabled?

In this chapter, we will describe our experience designing and fieldtesting a one-to-one tutoring program, Sound Partners (Vadasy, Wayne, O'Connor, Jenkins, Pool, Firebaugh, & Peyton, 2002), in a group of schools seeking to include students with disabilities in their school reforms. These schools were the site for a research project on restructuring schools for inclusion. This case study of Sound Partners illustrates the use of tutors to address specific early reading objectives. We will summarize our findings on one-to-one tutoring, and issues that schools should consider when planning a tutoring program.

In the course of our work in schools with volunteer tutoring programs, we found that schools either assign tutors with a very generic reading task (i.e., tutors who read aloud with students), or with very specific homework activities. Schools rarely have the resources to train tutors to remediate typical reading problems. At the elementary level

reading problems typically cluster in three major areas: word recognition, fluency, and comprehension, yet there are few tutoring programs (Invernizzi, Juel, & Rosemary, 1997; Juel, 1991) designed to target one of these specific hurdles. Furthermore, few tutoring programs have documented actual effectiveness in specific reading skills. Spear-Swerling and Sternberg (1994, 1996) have described a framework for reading development, using points along a continuum where students with reading disabilities typically diverge from their peers. Spear-Swerling and Sternberg's road to proficient reading begins with students who use primarily visual cues to recognize words, and ends with proficient readers who use higher-order comprehension skills. These authors describe nonalphabetic and compensatory readers who experience problems in word recognition. Nonautomatic and delayed readers are those who have acquired word recognition skills, but have not yet developed fluency and comprehension. Schools that use tutors effectively will first determine the stage of reading development at which a student is experiencing problems, and then determine an effective tutoring strategy to address the student's reading difficulty.

The fields of special education and reading have developed numerous interventions that benefit students with reading disabilities. The research is unequivocal that training in phonological skills has positive effects on reading and spelling (Bradley & Bryant, 1983; O'Connor, Jenkins, Leicester, & Slocum, 1993; Vellutino & Scanlon, 1987; Williams, 1980). A variety of repeated reading strategies have been shown to improve fluency (Bowers, 1993; Dowhower, 1987; O'Shea, Sindelar, & O'Shea, 1985; Samuels, 1979; Stoddard, Valcante, Sindelar, O'Shea, & Algozzine, 1993; Weinstein & Cooke, 1992). Rapid reading of word lists and phrases develops automaticity and comprehension skills (Fleisher, Jenkins, & Pany, 1979; Tan & Nicholson, 1998). Reading comprehension skills show improvement with vocabulary instruction (Beck, Perfetti, & McKeown, 1982) and with the use of various fix-up strategies such as mental imagery (Pressley, Johnson, Symons, McGoldrick, & Kurita, 1989), reciprocal teaching (Brown & Palincsar, 1989), and inferencing strategies (Dole, Duffy, Roehler, & Pearson, 1991; Duffy, Roehler, & Herrmann, 1988). While these strategies have been developed and tested for use by certificated teachers, parts of these strategies may be simplified or adapted for tutor use to supplement a student's reading instruction. This is what we set

out to test in our project sites in the instruction of word recognition skills, including letter-sound knowledge and phonics-based reading skills.

Fieldtest Sites and Findings

Our project site was a group of four elementary schools in a large urban school district. The four schools had recently formed a non-profit corporation to collaborate on school reform. The schools served large numbers of minority and low-income students, and like many schools in the district were concerned about increasing student performance on the district's tests of basic skills. Approximately 65% of the students were minority, and 45% were eligible for free or reduced lunch. At the time we began our work on Sound Partners, the schools had funded a parent involvement program that paid low-income parents to work in the schools. When we began designing the beta version of Sound Partners, we had this group of parents in mind to provide the tutoring.

In each of the four years of our project (1993-1997), we fieldtested Sound Partners with a group of about 20 first graders. Each year we screened all first graders in the four project schools and selected the lowest 20% of students in reading performance, based on screening measures of letter knowledge and phonemic skills, and teacher judgment. We randomly assigned these students to either tutoring or a control group that received only regular classroom reading instruction. Each year students in the tutoring groups received 30 minutes of individual tutoring, four days a week, for about 25 weeks. Schools recruited tutors for the program from their communities. Most of the tutors were parents whose children attended the school at which they tutored. The non-profit coalition raised supplementary funds to pay tutor salaries. Tutors were paid an hourly rate of $5.00 for tutoring and training time. Based on our experience, we gradually increased the amount of training to prepare tutors, from two hours in the first year of the fieldtests to eight hours in the last year. During training tutors received a background in the importance of phonological and early reading skills, and they learned how to implement all of the instructional activities. Lesson components were introduced and modeled, and tutors received feedback on their practice delivering instruction.

Lesson Components

Sound Partners lessons were designed so that nonteacher tutors could deliver instruction easily and effectively. The lessons were formatted to highlight tutor script, and we worked with tutors to revise correction procedures and directions until they were as clear and easy to use as possible. Many of the lesson activities were drawn from research interventions and adapted for use by non-experts. Lessons were designed to take about one-half hour to deliver. Some students completed more than one lesson per day, and other students less. Each lesson included from five to 10 short components that took several minutes to implement. The lesson components were:

Letter sounds – Individual letter sounds and letter pairs are introduced, modeled by the tutor, and practiced by the student.

Rhyming – The tutor models rhyming word pairs, and then asks the student to provide a rhyme for a word.

Segmenting – The student uses an Elkonin box to practice segmenting words, beginning with onset-rime, and ending with segmenting of words with four phonemes, including a consonant blend.

Sounding out – The tutor models sounding out words without stopping between sounds, and the student practices with cvc words.

Word finding – The tutor is provided with sets of words that differ only in their initial, final, or middle sounds. The tutor chooses a word at random from a set and asks the student to match the spoken and written word.

Spelling/word cards – The tutor dictates words for the student to spell, and then makes word cards for new words. Word cards are practiced until the student reaches criterion. Spelling words provide practice on recently introduced sounds.

Word lists – Several sets of words are provided, each set offering practice on a recently introduced letter, letter pair, or word ending. The student first says the underlined sound in the word and then reads each word.

Magnetic letter board – The tutor spells groups of words in a word family (e.g., jump, dump, pump) on the board, and the student reads the words and identifies the word families.

Sight words – The tutor introduces sight words that will appear in the storybooks that the student will read in the lessons. Most sight words are introduced several lessons prior to when the student will encounter them in text.

Silent-e words – The tutor introduces the silent-e rule, and the student practices identifying the vowel, recognizing silent-e words, and distinguishing silent-e and non-silent-e words.

Word endings – The lessons are used to teach the s, ing, ed, and y endings. The tutor models saying a word with each ending, and the student practices reading words with each ending.

Storybook reading – After lesson 6, every lesson includes reading practice. Storybooks are selected to insure that they closely match the skills that students are learning, to provide maximum opportunities for practice. As students accumulate skills, students spend added time rereading familiar, primarily decodable storybooks.

Writing – After lesson 25, students spend about five minutes each lesson writing in their journal. Tutors assist students in composing their sentences, and encourage students to "spell it like it sounds." Tutors help students correct words that students have already learned the skills to spell.

When we posttested the first group of subjects in the spring of 1994, we found moderately positive effects of treatment on the tutored students' spelling (0.45) and segmenting skills (0.62), with an overall effect size of 0.37 across reading measures (Vadasy, Jenkins, Antil, Wayne, & O'Connor, 1997a). This group of tutors had used the beta version of Sound Partners. During our first fieldtest we observed tutors to identify lesson formats and tutor instructions that were difficult for tutors to follow, and instruction that needed modification for students. For example, we identified activities that needed increased repetitions, explicit correction procedures, and practice words that better matched our sequence of letter sound presentation.

We also identified changes in implementation suggested by our first fieldtest. In Year 1, all tutoring sessions were offered after school so that they might supplement students' regular classroom instruction. Initially, this seemed like a good idea, however,

after-school tutoring presented many logistical challenges at the fieldtest schools. It meant that someone had to supervise students waiting to be tutored, provide snacks for hungry and tired children, and it excluded children who were bussed and needed transportation home.

In the second year of fieldtesting, we rescheduled tutoring to begin the last hour of the school day so that students did not have to wait for tutoring after school. All tutoring occurred between 2:30 and 3:30. The major change in the lessons was to replace the original mix of primary level reading materials with storybooks written in a highly decodable text. Tutor training was increased from two to eight hours.

The posttest data from the spring of 1995 revealed that tutored students scored significantly higher than controls in decoding and spelling, with an average effect size of 0.45 across reading measures (Vadasy, Jenkins, Antil, Wayne, & O'Connor, 1997b). By the second year we became aware of significant variability in tutor implementation of lessons. Therefore at the end of Year 2, we also examined whether student outcomes in that year were influenced by the quality of tutoring, as measured by our regular tutor observations. We found that the quality of tutoring significantly influenced the benefits students experienced: students who had worked with tutors who carefully followed the lesson formats posttested significantly higher than students with less careful tutors and students in the control group across decoding, reading, and spelling measures, with an average effect size of 0.83.

In the third year of fieldtesting, we increased tutor supervision to test the tutors' use of lessons that had undergone major revisions under rigorous implementation conditions. Tutors were observed at least once a week and were rated on their instruction and student management, attendance, and punctuality. We found that under these controlled conditions, the tutored students' posttest scores were significantly higher than the scores of students in the control group on all measures of reading, decoding, and spelling. Across measures, effect sizes ranged from 0.42 to 1.24, and averaged 0.84, and 0.93 across reading measures (Vadasy, Jenkins, & Pool, 1988). The data from the third year of fieldtests indicated that it is indeed possible for nonprofessional tutors to help low performing first graders to make significant progress in beginning reading by the end of the year.

What were the conditions under which we obtained such strong tutoring effects in Year 3? The program was closely supervised by its developers, and the tutors were aware that they were part of a fieldtest study of a program they supported. The instructional content had been revised, and we used tutor feedback to design lesson formats that were easy to use. In Year 3, the instructional content and conditions of implementation were very close to ideal.

The implementation in Year 4, however, was more typical and more closely resembled what we expect Sound Partners tutoring would look like in the real world. In Year 4 we reduced our oversight of the program in the pilot schools and we observed each tutor about once a month. The schools assumed the full costs of funding the program (i.e., tutor salaries), and began to experiment with using their own staff to supervise tutors. In effect this meant that tutors were unsupervised because the schools were unable to release teachers to oversee the tutoring. At the end of Year 4, in the spring of 1996, students who were tutored posttested significantly higher than students in the control group on measures of reading and decoding. Effect sizes ranged from 0.31 to 0.69, and averaged 0.45, and 0.33 across reading measures. The program continued to benefit students, but to a much lesser degree than the previous year. Our fieldtest in Year 4 allowed us to observe the problems that schools would experience when they assumed greater responsibility for implementing and supervising the program. We also observed how schools took on the program and found ways we had not considered to fund tutors and monitor instruction. These are observations we are sharing with other schools and in our implementation handbook.

What Makes Tutoring Effective

Tutoring has an immediate appeal to parents, teachers, legislators, and funders. We found that schools often assumed that the greatest obstacle to implementing Sound Partners would be recruiting tutors. While tutor recruitment is not always as difficult as schools fear, recruitment of strong tutors is essential to the program's success. Researchers have begun to identify other features of tutoring associated with successful reading outcomes. In her study of 30 first graders with poor reading skills who were paired with university student athlete tutors, Juel (1996) looked for factors associated

with successful tutoring dyads. She found that successful dyads were characterized by bonding and affection. Successful tutors communicated verbal support and made students aware of their progress. They provided many scaffolded reading and writing opportunities, and they individualized and modeled reading experiences to match their student's reading ability. The tutors in Juel's (1996) study provided explicit modeling of reading and writing tasks to help the student understand the reading process. The instructional activities significantly associated with literacy growth were direct instruction in letter sounds, and reading books created by the students. These books included high frequency words drawn from the student's basal readers, and words built on word patterns taught in classroom phonics instruction.

Wasik (1998b) summarized successful features of four widely known and researched tutoring programs – Reading Recovery, Success for All, the Howard Street Tutoring Program, and Book Buddies. She identified eight program features associated with successful student outcomes: 1) A certified reading specialist supervises tutors; 2) tutors receive ongoing training and feedback; 3) tutoring sessions are structured and include word analysis, rereading a familiar story or text, writing, and reading new text; 4) tutoring is intensive and consistent; 5) tutors use quality materials; 6) student assessment is ongoing; 7) schools find ways to insure tutor attendance is regular; and 8) tutoring is coordinated with classroom instruction.

Added to Juel's (1996) and Wasik's (1998) guidelines, we found the following issues had serious implications for the quality and sustainability of Sound Partners, and likely pertain to other academic tutoring efforts as well.

Research-based Instructional Content

The research on early intervention in reading instruction is unequivocal, and Sound Partners incorporates literacy activities that provide explicit phonics instruction and develop deep understanding of the alphabetic code. Equally important, students practice their newly learned skills by reading and rereading text that is carefully selected to provide opportunities for practice. The content of the tutoring lessons is very clearly grounded on the recommendations of reading experts (Adams, 1990; Blachman, 1994a,

b; Blachman, Ball, Black, & Tangel, 1996; Blachman, 1997; Juel, 1996; National Reading Panel, 2000).

Lesson Design – Tutors as well as teachers value instructional materials that are easy to use. The tutors we worked with had no experience planning for instruction, and very little preparation time because they often tutored students in succession. They needed materials that were formatted in a predictable manner, and were very easy to follow. In our ongoing surveys and interviews with tutors who used Sound Partners, ease of use was mentioned consistently.

Tutor Selection and Training – We found that careful selection of tutors often determined whether a school's supplementary tutoring program is successful and easy to implement, or a headache that produces minimal benefits. Parents were the most effective Sound Partners tutors. They bring to tutoring their instincts to nurture students and make an investment in the future and in the classmates of their own children. Most of our tutors were paid a minimal salary, but the most successful tutors were motivated by the desire to help young students read, rather than the need for a paycheck.

Making it Obvious – When many of the students selected for a program like Sound Partners begin tutoring, they experience learning to read as a mystery that adults are anxious for them to solve. Well designed instruction is critical to make the task of reading obvious. In addition, tutors need training to help them reveal the secrets of reading to their students. Good tutors come to understand the problems that students encounter in learning to read a difficult alphabetic language like English. We observed that the strongest tutors find their own ways and language to make their students aware of the alphabetic principle and the phonemic skills that are the foundations for fluent reading.

School Support and Supervision – As we write this chapter, over 20 schools in our region have adopted Sound Partners. We have considered what makes Sound

Partners more successful at some schools than at others. The quality of tutors is a major factor. Another factor is the enthusiasm and resources that a school commits to the program. Successful schools make the program public, rather than ownerless and unacknowledged. These schools find prominent space for the tutors. The tutors are made to feel that they are playing an important instructional role, and teachers take the tutor contributions seriously. The students feel special and develop a strong bond with their tutor.

Intensive Intervention – When we set out to design Sound Partners, we intended to develop an intervention that was extraordinary in terms of intensity. That meant a minimum of 30 minutes of concentrated instruction provided four days per week. We wanted the program to extend through the school year. We continue to believe that this intensity is necessary. Tutors tell us about the slippage they notice in students' skills after long weekends or school vacations. In most schools tutoring stops for several weeks each year to schedule parent conferences or standardized testing. As a result we impress upon tutors the importance of using each minute of instruction as efficiently as possible. The research on ours and other intensive early reading interventions (Blachman, 1994a; Juel, 1996; Torgesen, Wagner, & Rashotte, 1997; Vellutino, Scanlon, Sipay, Small, Pratt, Chen, & Denckla, 1996) tells us that even 50 hours of supplementary instruction per year will not be sufficient to bring all students up to grade level in reading skills.

Issues Related to Research and Practice

The fieldtests of Sound Partners demonstrate that paraprofessional tutors can be trained to deliver supplementary instruction in phonics based early reading skills, with effect sizes that compare favorably to reading interventions that rely upon specialists. Our results in Year 4 make clear, however, that in order to obtain maximum reading and spelling outcomes in students, schools must make minimal investments in their tutors. First, tutors need adequate training to deliver instruction correctly. Second, tutors need supervision. Some tutors need hardly any supervision at all, and other tutors need more, but successful schools plan for it. The supervisor might be a first-grade, Title I, or

special education teacher with whom tutors can consult on questions about individual students. This teacher provides the regular contact and oversight to make tutors feel they are part of the school's instructional team. We discovered many parents in our fieldtests with strong skills and talents in systematic instruction. We also worked with tutors who had difficulty understanding the program and who seemed incapable of following directions. For example, we had little success with high school tutors, who sometimes ignored lesson formats and often lacked the dedication, reliability, and basic work skills that characterize effective tutors.

Dissemination of effective research-based programs is often a puzzle or a low priority for developers and researchers, who are often one and the same. Researchers must follow funding and move on to new projects and studies. Some programs lend themselves to being disseminated commercially or through well written manuals. A program like Sound Partners, however, requires that tutors participate in a training session where the lesson components can be modeled, and where tutors can practice delivering lessons and get feedback on their instruction. During Year 4 we observed the first group of tutors who were trained by teachers we had previously trained. The high level of implementation by these tutors leads us to believe that a train-the-trainers model for replication of Sound Partners is feasible. These dissemination issues influence the widespread use of a program like Sound Partners beyond its research origins.

Our finding on the impact of tutor implementation, illustrated in Figure 1, is sobering and bears consideration by those hoping that tutors will be able to fill in the instructional needs of the lowest skilled students. The quite powerful effects of tutors in Year 3 reflect the application of systematic and carefully supervised instruction by tutors. These Year 3 data demonstrate the potential benefits that tutors can offer students. In Year 4 the tutors had also been trained carefully, they also provided students intense assistance (about 50 hours), and they used instructional materials that were matched to students' reading needs. In Year 4, however, tutors often digressed from the instructional routines. They received minimal supervision and assistance with individual student problems. Even considering the reduced level of implementation, the Year 4 fieldtest probably represents much more intensive and appropriate assistance than many

tutoring programs. We hesitate to extrapolate from the modest effect sizes of our Year 4 tutors to the effect sizes that can be expected in typical unstructured and unsupervised tutoring. Figure 1 illustrates most clearly that tutors are a valuable instructional resource when schools utilize them effectively. The reading and spelling benefits students experienced in Year 3 were not without costs; however, many schools in our fieldtest region have decided that the benefits are worth the investment in materials and supervision that tutors require. This is the cost-benefit equation that schools must carefully consider when they look to tutors to supplement their reading instruction. Our experience suggests that to realize the full benefits of reading tutors, schools must reexamine staff responsibilities, program allocations (in the case of using paid tutors), and delivery models for providing special services. Some schools make minimal staffing and budget adjustments and others make more significant changes. In some of the schools that currently use Sound Partners, tutoring is their service delivery model for Title I services for first graders. In other schools, Sound Partners tutoring is provided as a prereferral intervention for students observed as likely to need special education. In yet other schools Sound Partners tutoring is added on top of traditional Title I and special education programs. These latter schools recognize the finding that with even the strongest research-based efforts at full inclusion (Zigmond et al., 1994), some students with learning disabilities require additional help in learning to read.

As Blachman (1994b) notes, research questions on the instructional content for tutoring students with reading problems remain to be answered. What is the optimal combination of skills to address in tutoring, and which combination results in the most powerful effects? The research that is beginning to accumulate on tutoring in phonological and early reading skills offers answers to some of these questions. We know that tutoring in phonological awareness alone is not maximally effective. The most powerful tutoring content will include instruction in phonological, letter-sound, and decoding skills combined with reading text that is selected to match these skills (Hatcher, Hulme, & Ellis, 1994). In this case, the research provides clear guidelines for structuring the content of this tutoring instruction in beginning reading skills. What are the training requirements for tutors? Because tutors lack the deep foundation in reading acquisition and instructional methods that teachers have, we felt that it makes sense to

provide tutors with training that is very specific to a subset of reading skills or to a stage of reading development. Programs that prepare tutors to be generalists in tutoring students in reading are unlikely to equip tutors to understand and address the types of problems that students encounter at various stages of learning to read. Sound Partners tutors have been prepared to be specialists in decoding instruction, a role in which most have been quite successful. With so few empirical studies of tutoring programs, we have yet to understand the program logistics and configurations that are most effective. How intensive must tutoring be to make a difference? Is two hours a week enough, or would three hours be significantly better? What type of assistance and supervision do tutors require to develop expertise and confidence in their skills and observations? How can schools provide this oversight? Are tutors able to organize their own materials for instruction, or do they need special curricula to be most effective? What features make tutoring materials effective as well as engaging for student and tutor?

The model of reading disability that Spear-Swerling and Sternberg discuss has implications for intervention. The model acknowledges the contextual variables, such as poverty and the environment that are likely to limit experiences that contribute to phonological awareness. Phonemic awareness may be less developed in students who have not experienced a print rich environment (Foorman, Francis, Beeler, Winikates, & Fletcher, 1997). Spear-Swerling (1998) and others (Berninger & Abbott, 1994; Shaywitz, Escobar, Shaywitz, Fletcher, & Makuch, 1992; Vellutino, Scanlon, & Tanzman, 1991) have proposed that we reconceptualize reading disability in terms of response to treatment, or the persistence of problems over time. This approach takes into account variation in children's responses to treatment and differences in reading problems. Treatment would accordingly vary in intensity, individualization, and duration, and would target each child's particular reading problems.

Classroom teachers and reading specialists are unlikely to be able to meet the needs for individualized instructional assistance this model requires. Our experience with Sound Partners leads us to believe that given certain program supports, nonteacher tutors with minimal training can provide intensive assistance in specific reading skills. Elementary school staff are most often concerned with remediating students who lack decoding and fluency skills. Research in these early reading areas

lends itself to being translated into effective, engaging, and easy-to-use materials for tutors to supplement the most critical stage of reading acquisition. With a modest but essential investment in training and materials, an army of reading tutors might truly meet the challenge of improving the reading performance of today's students.

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Appendix F

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Timing and Intensity of Tutoring: A Closer Look at the Conditions for Effective Early Literacy Tutoring

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In this article we report data from a longitudinal study of one-to-one tutoring for students at risk for reading disabilities. Participants were at-risk students who received phonics-based tutoring in first grade, students who were tutored in comprehension skills in second grade, and students tutored in both grades 1 and 2. At second-grade posttest, there were significant differences in word identification and word attack between students who were tutored in first grade only compared to students who were also tutored in second grade, favoring students who were tutored in first grade only. Overall, there were no advantages to a second year of tutoring. For students tutored in second grade only, there were no differences at second-grade posttest compared to controls. Schools may have selected students who did not respond to first-grade tutoring for continued tutoring in second grade. Findings are discussed in light of decisions schools make when using tutors to supplement reading instruction for students with reading difficulties.

Reading problems continue to undermine the school achievement of American students. In 2000, 37 percent of fourth-grade students performed below the basic level of reading achievement (demonstrating basic understanding of overall meaning in grade-level text, making obvious connections between text and personal experience, and making simple inferences) on the National Assessment of Educational Progress (NAEP) reading test (Donahue et al., 2001). Schools across the nation are struggling with how to best teach reading to students with learning difficulties.

One-on-one tutoring is often regarded as the gold standard for reading instruction. Confidence in the overall benefits of tutoring is supported by research (Cohen, Kulik, & Kulik, 1982; Juel, 1996; Wasik, 1998; Wasik & Slavin, 1993). Tutoring plays a central role in national programs such as the America Reads Challenge (Morrow & Woo, 2001), state programs such as Oregon's SMART program (Baker, Gersten, & Keating, 2000), and the mandate in the revised Elementary and Secondary Education Act (ESEA) (2002) that failing schools make tutoring available for their students. Individual tutoring is also a salient feature in Reading Recovery (Pinnell, DeFord, & Lyons, 1988) and Success for All (Slavin et al., 1996). Schools are apt to assume that some tutoring is better than no tutoring, and that more tutoring is better than less.

Research on the long-term consequences of early reading difficulty and on early identification of reading problems also provides an incentive for early reading tutoring. Juel (1988) found that students who are poor readers in first grade are almost certain to remain poor readers at the end of fourth grade, and Cunningham and Stanovich (1997) found that first-grade reading achievement strongly predicts 11th-grade reading achievement. Other researchers have shown that students at risk for reading failure can be identified early, using measures of phonological awareness and letter knowledge (Berninger, 1986; MacLean, Bryant, & Bradley, 1988; O'Connor & Jenkins, 1999; Share et al., 1994; Stanovich, Cunningham, & Cramer, 1984; Uhry, 1993; Wagner et al., 1993), and treated successfully with intensive, explicit instruction in phonological and early reading skills (see Bus & Van Ijzendoorn, 1999), including systematic phonics instruction (Ehri et al., 2001). Early intervention for reading problems reduces the number of students identified as learning disabled (Dickson & Bursuck, 1999; Jenkins & O'Connor, in press; O'Connor, 2000). Now that schools have access to practical means to identify students at risk for reading problems, there is further impetus to supplement these students' instruction. However, classroom teachers are often unable to provide intensive individual reading assistance to those students who most need it; more often schools look to nonteacher tutors to meet this need.

It is therefore timely that a body of research on tutoring is slowly growing, adding support to, as well as testing widely held assumptions about, tutoring's efficacy for students with reading problems. One area of research concerns features of effective tutoring. Juel's (1991, 1994, 1996) work with cross-age college student tutors, and the work of Invernizzi and her colleagues (Invernizzi, Juel, & Rosemary, 1996–1997; Invernizzi et al., 1997) on the Book Buddies

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program describe effective tutoring interventions provided by nonteacher tutors. Juel (1996) identified two components of effective tutoring: direct letter-sound instruction and reading in texts that introduce and repeat high-frequency words and words with spelling patterns previously taught in classroom phonics instruction. Invernizzi et al.'s (1997) ongoing study of Book Buddies tutoring identified features associated with program efficacy: intensity of intervention, use of lesson plans overseen by a reading specialist, inclusion of key instructional components (letter-sound correspondence, phonics-based word study, book reading, writing), and tutor longevity. Wasik (1998) reviewed 17 volunteer tutoring programs in reading for kindergarten through third-grade students. Wasik noted the limited effectiveness data on these programs and the challenges of conducting experimental research on school-based programs. She also identified program features consistent across successful programs: a designated coordinator knowledgeable about reading and reading instruction; structured tutoring sessions that included instructional components (reading new text, rereading familiar text, word analysis and letter-sound relations, and writing); and tutor training.

The tutoring interventions most often studied are one year or less in length. The value of extended tutoring for at-risk students was addressed in Fowler, Lindemann, Thacker-Gwaltney, and Invernizzi's (2002) study of second graders who received Book Buddies tutoring (Invernizzi, Juel, & Rosemary, 1996–1997; Invernizzi et al., 1997) in first grade. The study included Book Buddies students who did not attain grade-level reading outcomes at the end of first-grade tutoring and who continued to receive Book Buddies tutoring in second grade. Fowler et al. (2002) found that compared to a control group, Book Buddies students outscored controls on reading. Although group differences were not significant, all Book Buddies students tested at grade level at the end of second-grade tutoring, suggesting that some students require supplementary tutoring to attain solid word-reading skills.

In a recent meta-analysis of 29 treatment-control studies of one-on-one tutoring programs provided to elementary students at risk for reading failure, Elbaum, Vaughn, Hughes, and Moody (2000) identified characteristics of effective tutoring, which were also reported by Wasik (1998) and Invernizzi et al. (1997): (1) interventions that used trained tutors were highly effective in supplementing classroom instruction compared to interventions that used less skilled tutors; (2) interventions that served younger students had larger effect sizes than interventions for older students; and (3) interventions that focused on comprehension skills were more effective than other types of tutoring (phonemic awareness or mixed types). Elbaum et al.'s findings highlight the growing body of evidence supporting approaches to one-to-one tutoring. Yet many more questions remain about the characteristics of effective tutoring.

In this article we report analyses from a longitudinal study of one-to-one tutoring for students at risk for reading disabilities in which we address issues of tutoring content and intensity. Since 1993 we have been designing, field testing, and evaluating versions of phonics-based instruction in early reading skills called Sound Partners (SP) (Vadasy et al., 2002). Instruction has been specifically designed for one-to-one tutoring for first and second graders by nonteacher tutors. These tutors have been instructional assistants and, often, parents of other students in the school. Previously we have reported results of several first-grade tutoring studies that used SP (Jenkins et al., 2000; Vadasy et al., 1997a, 1997b; Vadasy, Jenkins, & Pool, 2000). First graders identified as at risk for reading problems who were provided with one year of supplemental individual tutoring with SP (from 27–36 weeks) demonstrated significantly higher scores in reading and spelling skills at the end of first grade relative to controls. This study examines new data on SP as well as a scripted program of assisted reading and instruction in multiple comprehension strategies for nonteacher tutor use with second graders. The study addresses the following questions.

1. Is there added benefit to continuing tutoring into second grade for at-risk students who received supplemental, phonics-based tutoring in first grade?
2. Do students who are not identified for tutoring until the beginning of second grade earn higher reading scores than similarly identified students who are not tutored?

In this study we present data from three groups of tutored students who had completed second grade. One group, "SP-Only," received first-grade tutoring in Sound Partners (SP), explicit, systematic phonics-based reading instruction, and no tutoring in second grade. A second group, "SP + TP," received Sound Partners tutoring in first grade as well as second-grade tutoring in Thinking Partners (TP), an assisted reading and comprehension strategy program. The third treatment group, "TP-Only," received only second-grade tutoring in Thinking Partners and no first-grade phonics-based tutoring. Control students received only regular classroom reading instruction in first and second grades. Table 1 describes each group by tutoring type.

TABLE 1
Group Sizes by Tutoring Type

		First Grade	
		No Tutoring	*SP Tutoring*
Second Grade	No Tutoring	Controls[a] n = 16	SP-Only n = 13
	TP Tutoring	TP-Only n = 10	SP+TP n = 26

[a] Control group meeting criteria for comparing to TP-Only group.

METHOD

Participants

Students

Participants in this study were selected from a group of 12 public elementary schools in a large urban school district in the Pacific Northwest. Six schools were the source

TABLE 2
Student Characteristics

Variables	SP-Only (n = 13) n (%)	SP + TP (n = 26) n (%)	TP-Only (n = 10) n (%)	Controls[a] (n = 16) n (%)
Gender				
Male	7 (53.8%)	16 (61.5%)	6 (60.0%)	10 (62.5%)
Female	6 (46.2%)	10 (38.5%)	4 (40.0%)	6 (37.5%)
Ethnicity				
Caucasian	4 (30.8%)	8 (30.8%)	3 (30.0%)	7 (43.7%)
Noncaucasian	9 (69.2%)	18 (69.2%)	7 (70.0%)	9 (56.3%)
African American	3 (23.1%)	8 (30.8%)	0 (0.0%)	3 (18.8%)
Asian	2 (15.4%)	3 (11.5%)	6 (60.0%)	2 (12.5%)
Hispanic	2 (15.4%)	1 (3.8%)	0 (0.0%)	2 (12.5%)
Other	2 (15.4%)	6 (23.1%)	1 (10.0%)	2 (12.5%)
Special Instruction/ Classification				
Limited English Proficiency/ESL	9 (69.2%)	7 (26.9%)	7 (70.0%)	11 (68.8%)
Title I	3 (23.1%)	7 (26.9%)	1 (10.0%)	2 (12.5%)
Special Education	1 (7.7%)	2 (7.7%)	0 (0.0%)	1 (6.3%)

[a] Control group meeting criteria for comparing to TP-Only group.

of controls only, four schools provided only treatment students, and two schools provided both treatment and control students. In September, students were selected by their classroom teachers as at risk for reading disability or reading failure and then were screened and pretested by project staff. Students identified as participants in first grade had standard scores of 90 or less on the reading subtest of the Wide Range Achievement Test-Revised (WRAT-R) (Jastak & Wilkinson, 1984) on their first-grade pretest. Students not identified as participants until second grade had standard scores of 90 or less at the time of their second-grade pretest. Students who received second-grade tutoring only either did not score low enough to be served in first grade or entered the schools after first-grade tutoring began. Table 2 describes demographic characteristics of all students in the study.

Tutors

Schools recruited and hired paid nonteacher tutors to supplement reading instruction for the first and/or second graders selected for tutoring. Tutors were primarily parents from the school community or instructional assistants. Sixty percent of the tutors had one or more years of tutoring experience in our previous intervention studies.

Measures

Pretesting took place during the first month of school and prior to the beginning of tutoring. First-grade pretest included: the Peabody Picture Vocabulary Test-R (PPVT-R) (Dunn & Dunn, 1997); the WRAT-R (Jastak & Wilkinson, 1984) Reading and Spelling subtests; and the Woodcock Reading Mastery Test-Revised (WRMT-R) (Woodcock, 1987) Word Identification and Word Attack subtests. First-grade posttest was nearly identical but did not include the PPVT-R.

For students not identified until second grade, pretest included: the WRAT-R Reading and Spelling subtests; the WRMT-R Word Identification and Word Attack subtests; and a fluency measure (words read correctly per minute) that averaged two grade-level reading passages from the Informal Reading Inventory (Burns & Roe, 1999).

Second-grade posttest included: the WRAT-R Reading and Spelling subtests; the WRMT-R Word Identification and Word Attack subtests; the fluency measure described above; and the Test of Word Reading Efficiency (TOWRE) (Torgesen, Wagner, & Rashotte, 1999) Sight Word and Phonemic Decoding subtests. As a near-transfer measure of the comprehension treatment, second graders were given four reading passages, selected to control for text type: two passages were decodable, as determined by the phonics skills previously taught to students, and two passages were less decodable and contained more high-frequency words. Two passages were expository; two were narrative. The two expository passages ("Moose" and "Puff Adder"), decodable and nondecodable, respectively, were taken from the Read Naturally Program (Hasbrouck, Ihnot, & Rogers, 1999). The two narrative passages ("Tom Got Up Early" and "Big Game"), nondecodable and decodable, respectively, were provided by Jane Oakhill from her comprehension studies (Oakhill, 1984; Oakhill, personal communication, March 13, 2000). These passages were selected to test inferencing skills and were adapted to conform more closely to decodable and nondecodable text types. Each of the four passages was accompanied by a set of five to seven comprehension questions, both inferential and literal. Two passages (one decodable narrative and one nondecodable expository) required the student to retell main ideas.

Tutoring Methods

Sound Partners

First graders were tutored using Sound Partners (SP) (Vadasy et al., 2002), which consists of 100 scripted lessons that emphasize beginning reading skills. Each SP lesson includes six to nine brief (2–15 minutes) activities that teach letter sounds, segmenting, decoding, spelling, sight words, and fluency. At the end of each tutoring session, students read decodable storybooks (Jenkins et al., 2002) corresponding with skills previously taught in the lessons. Lessons provided tutor scripts for delivering instruction. Tutors were trained to model new skills, scaffold student practice, and use appropriate correction procedures. Following is a brief description of lesson components.

Letter-Sound Correspondences. Tutors introduced an average of one new letter-phoneme relation each lesson. Single-letter sounds were first introduced, followed by consonant digraphs, consonant blends, and vowel teams. Cumulative review was provided on previously taught correspondences. Students practiced reading as well as writing the letters that match the sounds.

Sounding Out and Reading Decodable Words. In the early lessons, tutors modeled a decoding strategy of stretching out the sounds without stopping between them. In the later lessons the student read words made from previously taught letter sounds.

Spelling. Students practiced spelling in the letter-sound, word-reading, and sight-word activities. Tutors selected and dictated several words that include newly introduced letters or letter sounds that students needed additional practice spelling.

Sight Words. Tutors introduced nondecodable words that the student needed to read in upcoming storybooks and that appeared on high-frequency word lists. Students read, spelled, and reread each word.

Phonics Skills. In later lessons, tutors introduced the silent-e rule and students practiced reading mixed sets of words. Tutors also modeled reading words with common endings (s, ed, ing, y) and students practiced reading words with these inflections.

Storybook Reading. Beginning at Lesson 6, students read from 10–15 minutes per session in decodable books that feature primarily letter-sound correspondences and sight words previously taught in the lessons. Texts were placed in the lessons at points where students should be able to read them independently. The primary texts used were the Bob Books (Maslen, 1987). These were supplemented in later lessons with other decodable texts. The procedure for text reading was as follows: read the new book for the lesson two times, then read the previously introduced book once. If there was time remaining, the student reread other previously read books. The tutor chose one of three reading methods, depending on the student's skill level: echo reading, partner reading, or independent reading. Appendix A includes a sample composite Sound Partners lesson.

Thinking Partners

Second graders were tutored using Thinking Partners (Vadasy, Valencia, & Jenkins, 1999), a set of scripted lessons corresponding to 48 high-interest grade-level trade books read by the student during each tutoring session. Comprehension strategy instruction occurred during assisted reading. Instruction incorporated research-based features of effective comprehension strategy instruction (Brown & Palincsar, 1989; Duffy et al., 1986; National Reading Panel, 2000; Paris, Cross, & Lipson, 1984; Paris & Jacobs, 1984; Pressley & El-Dinary, 1997; Rosenshine & Meister, 1994). Five strategies were taught: keeping track (or on-line summarizing); understanding words (or noticing unfamiliar words); making connections (between ideas in text, and between text and prior knowledge); thinking ahead (making predictions); and making questions (asking a why question). At the end of each book students practiced retelling and sequencing the main ideas or events. Tutors introduced skills one at a time to their students as they read the books together, and students practiced each skill for four days before a new skill was introduced. Tutors were trained to model each strategy and use prompts to scaffold the student's practice. Prompts and models were supplied in the lessons. Early lessons included scripts for modeling the strategies; later lessons included prompts to encourage student practice. Students read both narrative and expository trade books. To reduce word-identification obstacles to comprehension of the trade books, all students, regardless of whether they received Sound Partners tutoring in first grade, spent at least two weeks reviewing letter-sound correspondences and decoding skills prior to beginning TP lessons. During the TP lessons tutors provided on-line decoding assistance, as needed. Following is a brief description of each strategy.

Keeping Track. Students practiced summarizing the part of the story just read. Lessons identified stopping points in each storybook where the tutor and student updated story progress. At these stopping points, the tutor prompted the student by asking," What's happening so far?" (for narrative text), or "What did you learn?" (for expository text). If the student had difficulty, the tutor prompted ("Where did we leave off?) or initiated a summary. Tutors faded prompting as students became familiar with the skill and independently stopped at the designated flags in the books and summarized or updated the text.

Understanding Words. Tutors helped students monitor word-level comprehension by pointing out words or phrases the student might not know. Tutors modeled how a good reader might stop and ask, "I wonder what *deliver* means" or "I need to figure out what *counting on you* means." Lessons provided tutors with cues to model this strategy. Tutors faded their prompts when students began to notice unfamiliar words and stop to figure out the meaning. If the meaning of a word could not easily be determined from context, the tutor provided a definition.

Making Connections. Tutors encouraged students to connect what they just read to the rest of the story or to things the student already knew. Lessons provided examples of how to model making connections at points in the text where the reader needed to draw on background knowledge or to remember or reread an earlier part of the text. Lessons suggested places in the text where the tutor could stop to model a question that required the student to fill in gaps in understanding at the sentence or text level. Tutors also prompted students with questions to encourage self-monitoring, such as "What do you need to figure out here?" or "What are you thinking about here?" Tutors faded prompts and questions as students began to self-monitor.

Thinking Ahead. The lessons identified stopping places in the text where the tutor prompted the student to make a prediction. In the early lessons, tutors modeled predictions; as time progressed, tutors faded prompts and responded to the student's predictions.

Making Questions. At designated places in the text the tutor stopped the student and modeled and prompted the student to ask "why" questions about the pages the student just read. Most of these "why" questions required the student to make inferences about the story, to connect parts of the story, or to fill in gaps with background knowledge. In the later lessons students were expected to spontaneously generate their own "why" questions.

Tutors and students read one storybook approximately every two days. First-grade-level trade books were used during the first stage of instruction, and second-grade-level texts were used in the later stages. Expository texts comprised

about 15 percent of the books read. Appendix A includes a sample Thinking Partners lesson script.

Procedures

Treatment Group

Students were drawn from eight schools representing 21 different classrooms. Treatment students were assigned to work individually with a tutor for 30 minutes a day, four days a week, for approximately 35 weeks. SP-Only students were tutored only in the first grade; SP + TP students were tutored in both first and second grade; and TP-Only students were tutored only in the second grade. All tutoring was scheduled during the school day and occurred outside the classroom in a designated space (e.g., school hallway, library, or empty classroom). Schools often scheduled tutoring to occur during the student's classroom reading instruction, and in some schools tutoring was considered part of the student's Title I or special education services. In the schools that served as research sites for Sound Partners, classroom teachers often regrouped reading instruction while the tutored students were out of the classroom. Some teachers provided the tutored students with small-group instruction when they returned, while the rest of the class completed independent seat work or engaged in silent reading. It is difficult to describe for which students tutoring resulted in reading instruction in addition to regular classroom reading instruction because when and how students were pulled for tutoring varied across the school year. This was also the case for the Title I and special education reading instruction provided to controls.

Controls

Control students received regular classroom reading instruction in first and second grades (which may have included Title I or special education assistance). Control students were drawn from six schools, representing eight different classrooms. Some control students came from schools demographically similar to the treatment sites that were not able to implement a tutoring program. Other students in the control groups were drawn from schools that had implemented SP and/or TP tutoring programs, but were not served for various reasons (e.g., scheduling conflicts, insufficient school resources to serve all needy students).

Tutor Training

Tutors received four hours of training from research staff at the beginning of the school year. Trainers provided background and rationale for the instruction, modeled each instructional activity, and observed and provided feedback to trainees as they practiced the tasks with each other. All tutors were visited at least weekly throughout the school year by research staff. During these visits, staff observed and recorded tutor fidelity in following lesson components, provided follow-up coaching and modeling on how to teach the lessons more effectively, and gathered feedback from tutors on student progress and program improvements.

Fidelity of Tutoring

Observers used a checklist of implementation criteria to measure quality of tutoring each time they visited a tutor. The checklist included essential activities or tutor behaviors that we deemed necessary to adequately deliver each component of instruction. Lesson components for the Sound Partners tutors included letter-sound instruction; segmenting; phoneme blending; spelling; sight-word instruction; phonics instruction in silent-e words and word endings; and scaffolding during storybook reading. Criteria varied with the lesson component. For example, criteria for letter-sound instruction were: models correct sounds; detects and adds practice on weak sounds; and says the sound for the student to write. Lesson components for Thinking Partners tutors included tutor instruction in five comprehension strategies. Here, too, criteria varied by component. For example, criteria for the keeping track strategy were: stopping at designated spots in the text for the student to summarize; using scripted prompts and models when the student is unable to demonstrate the skill; and providing specific praise for the student's efforts. Criteria for thinking ahead were: prompting the student to think about what will happen; modeling the strategy correctly when needed; and following up to check the student's prediction. Observers also recorded whether tutors met criteria for overall organization, positive affect, management of time and materials, use of specific praise, and error corrections. The authors conducted a total of 53 observations on SP-Only students (4.1 observations per student), and 307 observations on SP + TP students (11.8 observations per student averaged across first and second grade). We computed a score for each tutor based on the criteria observed out of total criteria possible.

RESULTS

First-Grade Results

SP-Only students received a mean of 36.4 hours of tutoring in first grade (SD = 6.29). SP + TP students received a mean of 41.8 hours of SP tutoring in first grade (SD = 14.85), and a mean of 39.4 hours of TP tutoring in second grade (SD = 8.21). There were no significant differences between groups on the number of hours spent on SP tutoring. Fidelity of implementation ratings of tutor instruction based on tutor observations were quite high; tutor fidelity was 92 percent for SP-Only tutors and 91 percent for SP + TP tutors (averaged across first- and second-grade tutoring).

SP-Only and SP + TP treatment groups did not differ significantly on any pretest. First-grade posttests were compared using one-way analyses of variance (ANOVAs). Table 3 shows means and standard deviations. Both groups made substantial gains. Across pre and posttests, standard scores on average increased by 17 points, from 82 at pretest to 99 at first-grade posttest. Figures 1 and 2 show first-grade gains for both

TABLE 3
Means, Standard Deviations, and One-Way Analyses of Variance for Effects of Length of Tutoring

Measures	SP-Only n = 13 M	SP-Only n = 13 SD	SP + TP n = 26 M	SP + TP n = 26 SD	F (df)	p	d
WRAT-R Reading[a]							
Grade1 pretest	80.2	9.05	79.4	6.81			
Grade1 posttest	96.9	7.58	93.6	11.61	0.884 (1, 37)	0.353	0.33
Grade2 posttest	102.4	7.88	97.5	13.67	1.412 (1, 37)	0.242	0.42
WRAT-R Spelling[a]							
Grade1 pretest	77.5	8.00	72.7	10.13			
Grade1 posttest	94.4	11.67	87.5	14.49	2.209 (1, 37)	0.146	0.51
Grade2 posttest	92.7	11.59	90.7	13.60	0.198 (1, 37)	0.659	0.15
WRMT-R Word Identification[a]							
Grade1 pretest	86.6	5.56	84.4	6.31			
Grade1 posttest	103.4	8.24	101.7	9.99	0.278 (1, 37)	0.601	0.18
Grade2 posttest	108.2	7.40	101.2	9.28	5.531 (1, 37)	0.024	0.80
WRMT-R Word Attack[a]							
Grade1 pretest	89.4	9.54	88.5	8.05			
Grade1 posttest	106.7	6.29	104.6	10.69	0.431 (1, 37)	0.516	0.23
Grade2 posttest	112.2	8.84	100.0	11.24	11.560 (1, 37)	0.002	1.16
TOWRE Sight Word Efficiency[a]							
Grade2 posttest	104.8	9.94	99.8	12.31	1.587 (1, 37)	0.216	0.43
TOWRE Phonemic Decoding[a]							
Grade2 posttest	104.9	7.08	99.3	14.19	1.819 (1, 37)	0.186	0.48
1-Minute Fluency[b]							
Grade2 pretest (2 passages)	46.1	12.88	42.5	22.89	0.278 (1, 37)	0.601	0.18
Grade2 posttest (2 passages)	89.6	22.25	80.4	33.07	0.825 (1, 37)	0.370	0.31
Comprehension[c]							
Grade2 posttest psg. 1 "Moose"	0.69	0.21	0.68	0.20	0.006 (1, 37)	0.938	0.25
Grade2 posttest psg. 2 "Tom Got Up Early"	0.58	0.19	0.52	0.26	0.537 (1, 37)	0.468	0.14
Grade2 posttest psg. 3 "Puff Adder"	0.45	0.34	0.40	0.35	0.155 (1, 37)	0.696	−0.12
Grade2 posttest psg. 4 "The Game"	0.67	0.29	0.70	0.24	0.135 (1, 37)	0.716	0.11
Grade2 posttest total—all psgs.	0.60	0.19	0.58	0.19	0.094 (1, 37)	0.761	0.05

Note: WRAT-R = Wide Range Achievement Test-Revised; WRMT-R = Woodcock Reading Mastery Test-Revised; TOWRE = Test of Word Reading Efficiency.

[a] Standard score.

[b] Words correct per minute.

[c] Percent correct.

groups. Mean standard scores on the WRMT-R Word Identification and Word Attack subtests and on the TOWRE Sight Word and Phonemic Decoding measures for both groups were at or above the 50th percentile at the end of first grade.

Does Extending Tutoring in Second Grade Add Benefit?

Second-grade posttests were analyzed using one-way ANOVAs. Paradoxically, as seen in Table 3, the SP-Only group maintained their gains through the end of second grade, while the SP + TP group appears to have made smaller or no gains in second grade. However, 23 (88 percent) of SP + TP students did increase in word identification from grade-1 posttest to grade-2 posttest. SP + TP students did not differ from SP-Only students at grade-2 posttest on fluency or any of the comprehension measures.

The groups differed significantly on two posttests: SP-Only students were significantly higher than SP + TP students on the WRMT-R Word Identification subtest $F(1, 37) = 5.531$, $p = 0.024$, and Word Attack subtest $F(1, 37) = 11.560$, $p = 0.002$ (see Figures 1 and 2).

Closer examination of SP-Only and SP + TP groups revealed that the groups included different proportions of nonresponders at the end of first grade. We defined "nonresponders" in two ways: first as students with first-grade posttest WRAT-R Reading standard scores (SS) of less than 90, and second as students who made gains of less than one-third standard deviation (five points) from first-grade pretest-to-posttest on the same measure. Fewer SP-Only students were nonresponders at the end of first grade in terms of posttest less than 90 SS (i.e., 23 percent compared to 42 percent nonresponders in the SP + TP group). If we change this definition of nonresponders to students who gained less than five points on the WRAT-R Reading standard subtest, 8 percent

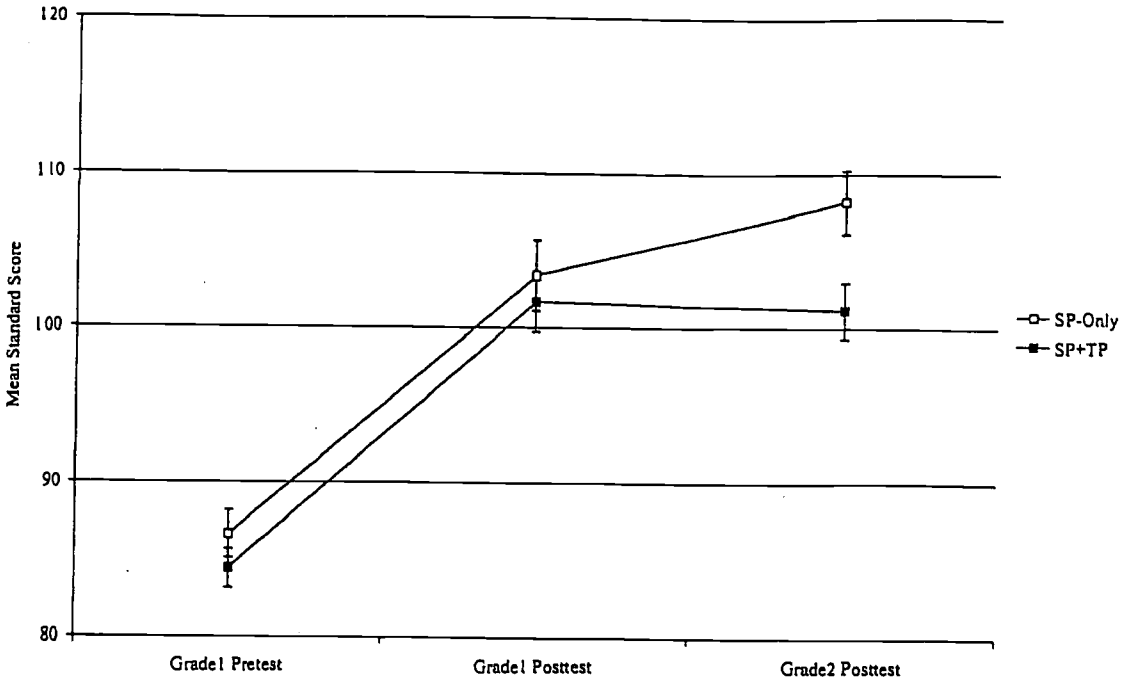

FIGURE 1 WRMT-R word identification.

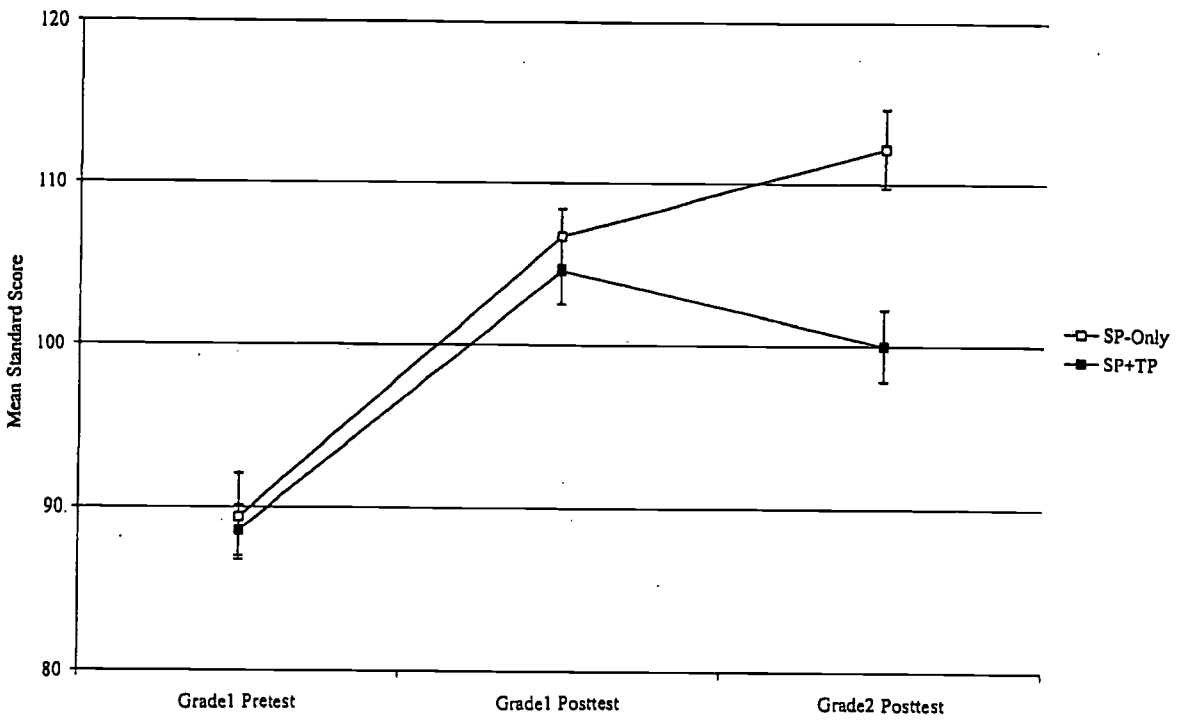

FIGURE 2 WRMT-R word attack.

(n = 1) of students in SP-Only were nonresponders, compared to 30 percent (n = 7) in SP + TP. The disproportionate number of nonresponders in the two treatment groups suggests that schools selected students who failed to respond to first-grade tutoring for inclusion in the second-grade treatment.

Do Students Who Start Tutoring in Second Grade Earn Higher Reading Scores Than Similar Students Who Are Not Tutored?

Prior to their TP instruction, TP-Only students received an average of 26 tutoring sessions (or 13 hours) in phonics-based

TABLE 4
Means, Standard Deviations, and One-Way Analyses of Variance for Effects of Second-Grade Tutoring

	TP-Only n = 10		Controls n = 16				
Measures	*M*	*SD*	*M*	*SD*	*F (df)*	*p*	*d*
WRAT-R Reading[a]							
Grade2 pretest	77.7	7.93	78.9	10.40			
Grade2 posttest	89.1	5.22	84.4	14.63	0.954 (1, 24)	.338	.43
WRAT-R Spelling[a]							
Grade2 posttest	83.3	9.62	78.8	12.69	0.942 (1, 24)	.342	.40
WRMT-R Word Identification[a]							
Grade2 pretest	90.8	4.02	91.9	8.26			
Grade2 posttest	96.8	2.70	94.2	8.50	0.877 (1, 24)	.358	.42
WRMT-R Word Attack[a]							
Grade2 pretest	88.8	7.16	93.5	9.87			
Grade2 posttest	95.5	3.44	93.3	8.99	0.568 (1, 24)	.459	.33
TOWRE Sight Word Efficiency[a]							
Grade2 posttest	93.1	8.62	90.7	13.20	0.262 (1, 24)	.614	.21
TOWRE Phonemic Decoding[a]							
Grade2 posttest	88.5	5.46	89.4	11.94	0.047 (1, 24)	.830	−.09
1-Minute Fluency[b]							
Grade2 pretest	31.1	10.26	26.3	11.40			
Grade2 posttest	60.6	13.49	62.0	30.16	0.020 (1, 24)	.888	−.06
Comprehension[c]							
Grade2 posttest psg. 1 "Moose"	0.79	0.20	0.72	0.20	0.596 (1, 24)	.448	.35
Grade2 posttest psg. 2 "Tom Got Up Early"	0.50	0.23	0.50	0.31	0.000 (1, 24)	1.000	.00
Grade2 posttest psg. 3 "Puff Adder"	0.38	0.38	0.44	0.24	0.221 (1, 24)	.643	−.20
Grade2 posttest psg. 4 "The Game"	0.73	0.24	0.68	0.27	0.293 (1, 24)	.593	.19
Grade2 posttest total—all psgs.	0.61	0.20	0.59	0.19	0.062 (1, 24)	.805	.10

Note: WRAT-R = Wide Range Achievement Test-Revised; WRMT-R = Woodcock Reading Mastery Test-Revised; TOWRE = Test of Word Reading Efficiency.

[a] Standard score.

[b] Words correct per minute.

[c] Percent correct.

skills review, including single letter and digraph sounds and decoding. These students completed an average of 82 sessions (41 hours) of TP instruction and completed an average of 21 TP lessons (SD = 6.29). Their mean rate of TP lesson completion was approximately one lesson every four sessions. We compared TP-Only students who were tutored only in second grade with controls. Students in both groups met the pretest criterion of scoring 90 or less on the WRAT-R Reading subtest at entry into second grade. Depending on when the student entered the study, some control students (eight) were tested at the end of grade 1 and others (eight) were tested at the start of grade 2. Student characteristics and test means and standard deviations are shown in Tables 2 and 4, respectively.

Tutor fidelity ratings for TP-Only tutors averaged 94 percent. Second-grade posttests were analyzed using univariate ANOVAs. Table 4 summarizes the ANOVA findings. Results indicated no significant differences between TP-Only and control groups on any of the measures. However, when we adjusted for pretest (i.e., end of first grade or beginning of second grade scores), there were moderate effect sizes favoring TP-Only on the WRAT-R Reading subtest (0.71), WRMT-R Word Identification subtest (0.59), and WRMT Word Attack subtest (0.70). Again, there were no differences between TP-Only and controls on any of the comprehension passages.

DISCUSSION

As in previous studies (Jenkins et al., 2000; Vadasy et al., 1997a, 1997b; Vadasy, Jenkins, & Pool, 2000), we found that tutoring first-grade at-risk students raised their achievement (word attack, word identification, and spelling) to at or near grade level at the end of first grade. For the SP-Only group, tutoring gains were maintained at the end of second grade.

Unlike Fowler et al. (2002), we did not find added benefits for continuing tutoring in second grade. When compared to either SP-Only students or controls, students who received TP did not differ on the passages used to assess comprehension. Additionally, students who did not receive tutoring until second grade (TP-Only) did not demonstrate significantly greater gains than untutored counterparts. Overall, these findings reaffirm support for explicit phonics-based tutoring for first graders, but raise questions about the benefits of

assisted reading and comprehension strategy tutoring in second grade.

Practical Considerations

According to the yardstick by which experimental research is properly measured, this study has many limitations. After nearly a decade of applied research on tutoring interventions in school sites committed to the values of research and serving students, we remain daunted by the challenges of conducting controlled experiments on tutoring in natural settings. Without underestimating problems in the design of this study, we want to call attention to the numerous difficulties that constrained this study. Fowler et al. (2002) report similar obstacles to implementing a controlled experimental design of their tutoring intervention. The duty of school staff to serve those students most needing intervention and the mounting pressure to prepare all students to meet increasingly challenging state standards create a conflict when researchers ask schools to assign students to treatments based on study design rather than the students' best interests.

That said, there were practical considerations in this research that undermine the research design, several relating to characteristics of students who received treatment. First, schools imposed selection preferences for second graders who were assigned to tutors, as schools are likely to do when they offer supplementary instruction. Some schools chose not to continue tutoring students who had received one year of SP tutoring and were still below grade level at the beginning of second grade, whereas other schools chose to continue tutoring if these students were still having difficulty with classroom reading instruction. School resources also influenced decisions to serve second graders. Some schools had sufficient tutor resources to continue all second graders who had received first-grade SP tutoring in the belief that more tutoring is better than less. Other schools with fewer resources chose to serve only first graders and second graders with the lowest reading scores. Due to these school selection effects, second-grade SP + TP participants included students who responded to phonics-based first-grade tutoring, students who did not respond to phonics-based first-grade tutoring, as well as TP-Only students who did not receive explicit phonics-based tutoring in first grade. As others have noted (Blachman, 1994; Torgesen et al., 1997), treatment nonresponders may represent a different and distinct population from a randomly selected group of at-risk second graders. However, when we attempted to control for this selection bias in secondary analyses with the SP-Only and SP + TP groups by removing these nonresponders, there were still no differences between the groups in performance on reading measures at posttest.

A second, related challenge to this study design involved the control groups. School selection made comparability of controls to the treatment groups questionable because schools chose to first serve their most needy students.

Third, the lack of effects for second-grade tutoring in assisted reading and comprehension skills may be due to the nature of the intervention that tutors used, in contrast to the first-grade phonic-based intervention, which has been extensively evaluated. Nonetheless, others have found benefits from comprehension tutoring (though this may be true primarily for older students) (Elbaum et al., 2000), and our tutored students did receive much more reading practice than they would have without tutoring. To determine whether our failure to find benefits from an extended year of tutoring is due to the nature of TP instruction, we are currently in the process of comparing outcomes of TP-Only students in this study with students who receive phonics-based tutoring only in second grade. Similarly, we will also be comparing a group of students who receive two years of SP with those who receive only one year, and with those who receive other types of tutoring in second grade.

This leads to the fourth concern. In most of the studies of tutoring in comprehension skills reviewed by Elbaum et al. (2000), tutors were trained teachers and students were often older than second grade. Effects of TP-Only were expected to be larger in this study than typical unstructured assisted reading tutoring because tutors were trained and carefully supervised, many tutors had previous tutoring experience, students were matched to instructional level texts, all tutors used scripted instruction, and tutor fidelity ratings were quite high. However, comprehension skills tutoring may require more skills and judgment than does phonic-based instruction and may be less well suited to a scripted format. It may also be that the phonemic awareness and mixed type tutoring reviewed by Elbaum et al. (2000) was not more effective than the comprehension methods because training and materials were not designed specifically for nonteacher tutor use.

Fifth, we did not account for the type of reading instruction students received in their classrooms, which may have influenced student outcomes. Although we did not conduct observations of classroom reading instruction, based on previous surveys of classroom reading approaches in our tutoring studies, it is likely that the 21 classrooms from which treatment students were drawn and the eight classrooms from which control students were drawn represent diverse reading approaches.

Sixth, the screening and technical assistance our research staff provided to the schools may be considered by some a limitation in generalizing these findings, but also underscores an essential feature of effective tutoring. The schools in our treatment groups received support in identifying at-risk students through a combination of classroom teacher referrals, school meetings with project staff, and extensive pretesting. Our repeated findings that SP tutoring is effective when first-grade students are carefully identified points to the need for schools to establish a process and delegate responsibility for identifying students for appropriate tutoring. Our staff served as the on-site reading coordinator, a position identified by others (Invernizzi et al., 1997; Wasik, 1998) as a feature of effective tutoring programs.

Seventh, conclusions that can be drawn regarding the benefits of the comprehension treatment are constrained by the measures used to describe progress in comprehension. Inclusion of a norm-referenced comprehension measure at posttest would increase confidence in our finding of no effects. While the passages used at posttest were selected to capture use of higher-level comprehension skills, they did not require that students demonstrate actual use of comprehension strategies.

Finally, the findings must be viewed in light of the small sample sizes. Nevertheless, it is remarkable that no treatment effects were found for the TP-Only group considering that these students received an average of 82 tutoring sessions (41 hours), read an average of 21 trade books during treatment, and received tutoring of high quality as reflected in tutor fidelity ratings.

This study provides clear support for the value of early supplementary instruction in phonics-based reading skills for first graders as soon as they are identified with reading problems, similar to the findings we reported previously (Jenkins et al., 2000; Vadasy et al., 1997a, 1997b; Vadasy, Jenkins, & Pool, 2000). In the case of interventions delivered by teachers and other skilled instructors, Torgesen et al. (1999) and Blachman, Tangel, Ball, Black, and McGraw (1999) found that some students require, or benefit from (Fowler et al., 2002), more than one year of intervention. Using nonteacher tutors, we did not, however, observe added benefits when TP tutoring was continued for students who received phonics-based tutoring in first grade. Nor did we find that students who were not identified until second grade show significant effects for this type of comprehension tutoring (although our control group may not have provided a fair standard of comparison).

The findings also suggest that many students who respond to first-grade supplemental phonics-based tutoring will continue to make progress with skilled classroom reading instruction, even without tutoring assistance. Our findings are inconclusive, however, regarding how best to serve second graders who do not respond adequately to first-grade phonics-based tutoring and we are addressing this question in a follow-up intervention study. Finally, students initially identified in the second grade may be better served with regular classroom instruction and/or tutoring in phonics and word analysis, spelling, or fluency (e.g., Fowler et al., 2002; Torgesen et al., 1999).

CONCLUSION

Decisions about how best to use tutors might receive more thorough consideration as tutoring becomes more widespread in our schools. Programs such as America Reads and Reading Corps place tutors in urban schools that serve large numbers of students at highest risk for reading problems. Often, decisions about tutoring are part of discussions on how to allocate limited school resources wisely for students with reading difficulties. Some schools serve many students with poor reading skills and have few tutors to supplement instruction. In other schools with access to tutors, it may not be clear how they can be used most effectively. Additionally, most tutors are nonteachers and their understanding of reading theory and practices is necessarily limited. Currently, it is difficult for schools to know which students will benefit most from the instruction that tutors are able to offer.

We have previously documented (Vadasy et al., 1997a) the effects of the quality of tutoring on student outcomes, finding that poor-quality tutoring is at best no different than no tutoring, and at worst may deprive students of more skilled classroom instruction. It appears better for a student to remain in the classroom for group reading instruction with a skilled teacher than to be poorly matched to a tutor. In other cases, a tutor may be able to offer the individual explicit instruction or added practice that allows the student to catch up to his or her classmates. Decisions about tutoring should be made with adequate consideration of student needs and in light of research to support instructional choices for struggling students.

Clearly, schools are finding that tutors make it possible to supplement the reading instruction of a large number of struggling students. It is timely to examine more closely the widespread belief that tutoring is always a good thing for these students. Our data suggest that this may not always be the case. Studies of the effects of Sound Partners tutoring continue to indicate that trained and supervised nonteacher tutors can be highly effective in teaching word-reading and spelling skills when the tutors have training in research-based strategies and when they deliver carefully designed instruction using materials developed and field tested specifically with nonprofessional users in mind. Good intentions are not sufficient when students are being removed from the classroom for tutoring. These and our previous findings suggest that the quality, nature, and timing of tutoring determine its value to students at risk for reading problems.

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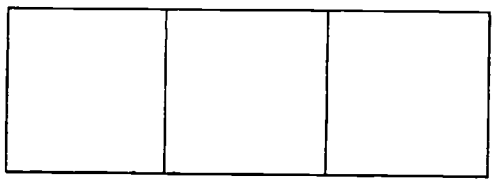
Appendix

Sample Sound Partners Lesson

f fish f s b u sun ball umbrella i p w f itch pig window u R N J rat nail jet	**Say the Sounds** "Point to each letter. Say the sound." (Get paper) "Write the letter that makes the ____ sound." (Choose new and difficult sounds for student to write.)
	**Segmenting** "Listen to me say the word." "Now break it into three parts." tug fan pig run (Student points, puts one sound in each box.)
fun fun wag rid fin can sad fig fan jog	**Word Reading** "Sound these out and say them fast." Select several words for oral practice: "What does ____ start with?" "What does ____ end with?" (Get paper) "Now you spell ____. Read it." (Choose three words for student to spell and read.)
Vowels: a, e, i, o, u mop mope rip ripe tap tape tub tube	**Silent "e"** Here is the rule: "If a word has an 'e' at the end, the middle vowel says its name, and the 'e' is quiet." "Let's practice using this rule." Point to each word and say: "Is there an 'e' at the end of this word?" "Will the middle vowel say its name or its sound?" "Let's sound out the word." *When you get to tube: "The silent e can make the u say o͞o or yo͞o. Sometimes you have to try both sounds to see which fits."

Sample Thinking Partners Lesson (Page 1 of 2)

Watch out for Bears
The Adventures of Henry and Bruno
Ferida Wolff (Random House)

Tutor stops at flags on pages:
11 19 24 31 41 48

Background: This story is about a man named Henry and a bear named Bruno.
What do you already know about bears?
Where do they live?
What do they like to eat?

Remember to connect what you know about bears when you read this story.

Tutor: Review five reading strategies with cards.

If Student Needs Help

Chapter 1. Honey for Bruno

Page 11 Keep track ✓ Check if completed

Notes:

Prompt:
How did the story start?

Model:
"Henry loved honey and..."

Notice words ___

List words student notices:

Prompt:
Notice any words you didn't know on p. 6? on p. 7? on p. 8? on p. 11?

Model:
"I wonder:
What a hive is.
What a meadow is.
Why Bruno said, 'There's no need for that.'"

Sample Thinking Partners Lesson (Page 2 of 2)

Page 11 (Cont.) Make questions ____ Student Question: _____ _____ _____	Prompt: Make a why question about p. 8. Model: "Why was Henry worried?"
Think ahead ____ Student Prediction: _____ _____ _____	Prompt: What do you think will happen? Model: "I think that Bruno will steal Henry's honey." Encourage student to tell you the evidence he/she uses to make his/her prediction.
Page 19 Follow-up: check Student prediction ____ Keep track ____ Notes: _____ _____ _____	Prompt: Where did we leave off? Model: "Henry ran to his honey and..."
Retelling (Circle points student covers): **Okay, tell me the story in Honey for Bruno again, but shorter.** 1. Henry the man loved honey. 2. He got some beehives to make his own honey. 3. He saw a bear and was guarding his honey. 4. Bruno the bear tried to get Henry to offer him honey. 5. He bumped into the hive and then saved it. 6. Bruno got Henry to offer Bruno pancakes and honey. Total points ____/6	If student needs help: Prompt: "Henry was a man, and he loved honey, and..."

About the Authors

Patricia F. Vadasy is a Senior Research Associate at the Washington Research Institute. She is interested in the prevention of reading disabilities, school-based research and staff development on early reading, and clinical applications of research on reading acquisition.

Elizabeth A. Sanders is a Research Associate at the Washington Research Institute. She manages the data for several research projects on early tutoring interventions for students at risk for reading disabilities.

Joseph R. Jenkins is a Professor in Special Education at the University of Washington. His research has focused on reading instruction, instructional systems, peer tutoring, and longitudinal effects of specific interventions.

Julia A. Peyton is a Research Associate at the Washington Research Institute. She coordinates two research studies of tutoring interventions for students at risk for reading disabilities and recently completed her Ph.D. in education at the University of Washington.

Appendix G

POWERFUL SCHOOLS SM

BUILDING STRONG COMMUNITIES

November 5, 2002

Patricia Vadasy, Ph.D.
Washington Research Institute
150 Nickerson Street Suite 305
Seattle, WA 98109

Dear Pat:

On behalf of Powerful Schools I would like to thank you for your continued support of the Powerful Readers tutoring program. I realize this is your last year of funding that provides no-cost training for our tutors and I am writing to support your new grant.

It has been proven through your data, teacher evaluations and our observations that well trained tutors are key to the success of our lowest readers. Because of the excellent training our tutors receive from your staff, they are very well prepared to meet the challenges both academically and socially of our students. Your continued support throughout the year, reassures both the tutors and myself that if we have any questions or concerns, you are always there to help. Even though I tutored for five years before becoming the Powerful Readers program manager, I learn something new each year at your trainings. This enables me to coach my tutors through rough areas when problems arise.

Powerful Readers has become a very important supplement to each school's reading program for those children who are not at grade level. The reputation of Sound Partners Curriculum and Powerful Readers tutors is highly regarded in the four Powerful Schools. I attribute this to excellent training and careful screening and monitoring of tutors. Your guidance, trainings and observations provide me with updated information regarding available programs you are working on and how we can incorporate them into our daily work with our lowest readers. I am very excited that we have been able to continue our 10-year relationship with you and WRI. Because of this we are now serving not only first graders but second and third as well and soon we will add kindergarten students who are already showing signs of falling behind their classmates.

Our current data shows that 85% of our first grade students who completed a full year with us reached or exceeded grade level reading. This is a very significant accomplishment considering all of these students were in the bottom 20% of their class in reading at the beginning of the school year. We have also had this same rate of success with our English Learning students. Our goal for our Special Ed. students is that they show improvement in their Direct Reading

Assessment scores at the end of the year and 100 % of our students reached this goal. Again, I attribute this to the excellent training and support WRI and Powerful Readers provides our tutors.

Just this week my lead observer and I spent three days with four new tutors who would like to become substitute tutors for our program. Kay and I spent many hours working with the new trainees. In the end, we both agreed that we should have contacted you and your staff to come lead the training. Kay and I consider ourselves very knowledgeable about the Sound Partners curriculum but realize that training our staff is something we should leave to the experts. In the future I hope that we will be able to continue to receive this service for free.

As you know, Powerful Schools is a non-profit organization working with four schools in the Rainier Valley. As with most non-profit agencies, money is very tight right now. Having to pay WRI for training services would result in fewer children receiving one to one tutoring and most likely these children will remain in the bottom 20% of their class in reading skills. Studies show that many of our children who remain below grade level in reading either quit school before graduation, don't go to college or end up in jail. We are trying very hard to break this destructive cycle by teaching our children to read.

Without your cost-free support to our program, I am concerned that our trainings will not be as effective as yours and the competency of our tutors will decrease. The direct result being, less prepared children.

My staff and I look forward to our continued partnership with WRI and will support your grant in any way needed. You or anyone else are always welcome to call me for more information at 206-760-3979.

Sincerely,

Valerie Wells
Valerie Wells

Valerie Wells
Powerful Schools
Powerful Readers Program Manager
vwells@powerfulschools.org
206-760-3979

Viewlands
Elementary
School
10525 Third Avenue NW
Seattle, WA 98177
(206) 252-4390

The
Seattle Public
Schools

October 15, 2002

TO WHOM IT MAY CONCERN

I am writing to support Washington Research Institute and Pat Vadasy's proposal for Sound Partners grant funding. During the six years of my tenure as principal at Viewlands School, we have worked very hard to secure enough funding to pay highly-trained reading tutors. Dr. Vadasy's team has provided the excellent training in sequenced, systematic strategies for promoting phonemic awareness in young children, as well as materials to do the work. Dr. Vadasy's team has been able to do this with no additional cost to us. Many children who would likely have had great difficulty learning to read or who perhaps would not learn to read at all, have had the benefit of reliable tools they can use when confronted with new, unfamiliar words. Knowing what to do when they did not know what to do has made all the difference for many of these children. Because of Sound Partners training and support, our tutors have had access to more effective strategies than some classroom teachers! Over the years, all Viewlands students have enjoyed the benefits of strategies shared with us by Washington Research Institute through tutor trainings, staff trainings and parent trainings.

The high-quality work done by our tutors is widely respected by parents and teachers alike. The methods and materials to which we have access through Sound Partners have caused classroom teachers and parents to make effective changes in the ways they work with children. Sound Partners one-on-one tutoring component completes the continuum of reading support we are able to offer. With this component we are able to vary support from one-on-one work, to groups of students sharing learning in literature circles. This plan assures that indeed ***no child is left behind***.

Working with such dedicated, responsible, professional individuals who share our concern for literacy in the democracy, is a joy. Supporting this work is an investment in the future of the nation as well as the lives of individual children.

C. Profilet-Shibayama
Viewlands Principal

SUPERINTENDENT OF PUBLIC INSTRUCTION

DR. TERRY BERGESON OLD CAPITOL BUILDING • PO BOX 47200 • OLYMPIA WA 98504-7200 • http://www.k12.wa.us

Patricia Vadasy, Ph.D.
Director, Sound Partners Programs
Washington Research Institute
150 Nickerson Street, Suite 305
Seattle, WA 98109

November 7, 2002

Dear Patricia:

This is my wholehearted letter of support for the professional development grant application you are submitting. Speaking from experience since 1999 when Sound Partners was first added to our Reading Excellence Act's list of research-based effective reading practices, I have seen schools across our state benefit from the training provided by your staff. Most of the schools that have adopted Sound Partners face many challenges in helping all students attain reading standards. The high quality, no-cost training that your staff offers enables these schools to supplement early reading instruction with a cost-effective model that is supported by nearly 10 years of your research and evaluation. As we foresee further cuts to school budgets, it is even more important that schools continue to have access to Sound Partners training.

I am also pleased to know that your proposed project will offer intensive year-long staff development for K-3 teachers in selected Seattle-area school sites serving large numbers of students at risk for reading failure. As our students are being held to higher expectations for reading performance, budgets are being cut in professional development. Many of our primary teachers did not receive adequate training in their preservice programs to prepare them to help students who struggle with the critical beginning reading skills. It is essential that our K-3 teachers have a deep understanding of language structure, and phonological awareness. They need to be familiar with the most effective scientifically based reading assessments and interventions that allow teachers to meet the needs of all students in their classrooms. I know of no other way for schools to access the type of recommended long-term professional development in these areas than through a project such as you are proposing.

I would be happy to continue to refer schools to your project for Sound Partners training, and to help you identify additional sites for teacher development in Year 3 of your project. In order to be sure that we leave no child behind, we must first leave no teacher or paraprofessional behind who works with our neediest students.

Sincerely,

Jo Robinson
Reading Excellence Act and Reading First Director

SEATTLE PUBLIC SCHOOLS

October 15, 2002

To Whom It May Concern:

Laurelhurst Elementary School has been extremely fortunate to have the support of the Washington Research Institute during our implementation of the Sound Partners program over the past 6 years. The Sound Partners program has been instrumental in closing the achievement gap in reading for students with reading delays and specifically for minority students. In the 2000-2001 school year every single second grader passed the state mandated reading assessment (Developmental Reading Assessment). This included special education students and significant numbers of students who were significantly delayed in reading in first grade. Last year we reviewed our minority performance data and were so pleased to see that the typical pattern of ever widening disparity in scores between minority and majority students was eliminated by the end of second grade for our target minority students. In fact our African American and Hispanic students passed the second grade state assessment at a higher rate than white students. This highly effective early intervention program is in large part responsible for the gains our students have made. Effective implementation of the program is the key to success for students. The Washington Research Institute has provided weekly support to our tutors in the form of observation and constructive feedback on the effectiveness of the their implementation of key program components. In addition, the Institute has provided timely and excellent tutor training both in workshop format as well as on-site consultation and support. Finally, the Institute was very aware of the importance of classroom teacher support and success of the program and provided training for classroom staff in understanding the goals and strategies of the program. Our teachers have over the years aligned our reading program goals and strategies with that of the Sound Partners program so that there is consistency for children.

We believe that this program and the support from the Washington Research Institute is critical to our students' reading performance and ask that you to give serious consideration to approval of their grant application. If you have any further questions, please feel free to contact me at 206 252-5400.

Sincerely,

Nancy Chin

Nancy Chin, Principal

4530 46th Avenue Northeast Seattle, WA 98105 Tel: 206.252.5400 Fax: 206.252.5401 www.seattleschools.org

B.F. Day School

October 11, 2002

To Whom It May Concern:

B.F. Day School has had Sound Partner tutors working with our children for the past 5 years. I was familiar with Sound Partner having worked with it while I was principal at Whitworth Elementary and was excited to have the program at B.F. Day. This program gives our students the skills they need to read fluently.

Each year, we decide as a staff which programs we want to continue funding. Sound Partner tutoring is always at the top of our list as programs we want to keep at B.F. Day. Our primary teachers say that this program has made a greater change in our students' reading abilities than any other program we have used. In spring, 2002 eighty seven percent (87%) of our 2nd graders met the reading standard on our Direct Reading Assessment. Only 3 of our students of color did not meet the standard at 2nd grade level. Sound Partner tutoring has helped B.F. Day School to eliminate the achievement gap in reading.

The program is successful because of the excellent training that WRI offers to the tutors. Our tutors know how to work with our students to bring about achievement. We are so grateful to WRI for the continued efforts with our Sound Partner tutors. We need the training throughout the year, and we hope you will support WRI.

Thank you!

Sincerely

Susan McCloskey

Susan McCloskey
Principal

B.F. Day Elementary
"The Family School"
3921 Linden Avenue North • Seattle, WA 98103 • (206) 252-6010 Phone (206) 252-6011 Fax

HIGHLINE PUBLIC SCHOOLS

EDUCATIONAL RESOURCES and ADMINISTRATIVE CENTER
15675 Ambaum Boulevard SW • Telephone 206-433-0111
Burien, Washington 98166

The mission of the Highline School District is to enable all students to acquire the knowledge, skill, values and attitudes to live productively and responsibly in a diverse and ever-changing world.

October 14, 2002

Patricia Vadasy, Ph.D.
Director, Sound Partners Programs
Washington Research Institute
150 Nickerson Street, Suite 305
Seattle, WA 98109

Dear Patricia:

I would like to add my letter of support for your grant application to provide professional development in early reading to K-3 teacher-paraprofessional teams in the Highline School District.

Because our school district serves large numbers of students who are at risk for reading problems, it is especially important that our classroom staff are strong reading teachers with sophisticated understanding of the process of learning to read. In Highline 11% of our students come from minority backgrounds, and 51.2% of students have English as their second language.

Since 1998, Washington Research Institute has provided training for Highline staff in Sound Partners tutoring, and this no-cost staff development has enabled our paraprofessional staff to better serve our most needy students. For example, this fall your staff trained tutors working in Project Look which serves low-income students in an after-school apartment-based program. Sound Partners staff have also trained Highline instructional assistants who work with our ESL students. Our staff would benefit from continued access to this training and technical assistance from your Sound Partners trainers.

The five Highline elementary schools that will be sites for your year-long professional development for K-3 teachers will most benefit from your project. We know from Catherine Snow's report that "at risk" students who are placed with strong teachers are most likely to become good readers, and that students who are not "at risk" are likely to develop difficulties in reading if they are placed with weak teachers.

We are very pleased that you have chosen to focus your intensive staff development on Highline teachers, who serve large numbers of at risk students. If your grant is funded our district will contribute meeting space and will work with your staff to schedule meeting times with teachers and paraprofessional staff. The staff development you have designed will engage teachers in continuous review and improvement, and meets the standards described by Dennis Sparks of the National Staff Development Council. I hope that the reviewers will recognize the merits of your application. We know that teaching reading is more important than ever before.

Sincerely,

Susanne Jerde

Susanne Jerde
Director of ELL, Title I

October 17, 2002

Pat Vadasy, Director
Washington Research Institute
150 Nickerson Street
Suite 305
Seattle, WA 98109

Dear Ms. Vadasy,

I am writing to thank you for the great Sound Partners training our staff received in September. Although we have the Learning Support Program at our school which serves twenty first and second grade students struggling with reading, there are still more children in need who will greatly benefit from Sound Partners.

We are looking forward to beginning the Sound Partners program at Lakeridge Elementary. Two other schools in our district are currently using Sound Partners and love it. Our staff is very enthusiastic and thrilled that we are going to be able to meet the needs of more students who are at risk of reading failure.

We are so grateful for the training our staff received. Our trainer was excellent and we appreciated the time she took answering additional questions after the training. The Sound Partners program is an excellent one to use with struggling readers and we are excited to begin.

Thank you for your support and expertise.

Sincerely,

Ginny Hardman
Learning Support Program
Lakeridge Elementary School

Bryant Montessori School

717 South Grant Avenue • Tacoma, Washington 98405
(253) 571-1383 • Fax (253) 571-1127

Paula Fascilla, Principal

October 10, 2002

Patricia Vadasay, Ph.D
Director, Sound Partners Programs
Washington Research Institute
150 Nickerson Street Suite 305
Seattle, WA 98109

Dear Patricia,

I am pleased to write a letter of support for Sound Partners and specifically for continued training of our tutors. Sound Partners program has increased the reading skills of our first, second and third grade students who were referred for tutoring.

We are very pleased to state that children exiting the program increased the number of words per minute they could read - a direct corollary to reading fluency and comprehension. One of our students entered reading 17 words per minute and at the end of the year was reading 93 words per minute.

Our teachers stated that this after school-tutoring program directly affected their student's abilities and enjoyment in reading. They stated that they were more easily able to distinguish trouble spots in the decoding skills of students.

Our tutors are recruited from the community and include senior citizens, college and high school students. We need tutor training that is consistent with the newest upgrades of the material and who know and use the materials on a daily basis. We need this training on an ongoing basis as we have about a 50% turnover in tutors every year. Our new tutors deserve the most complete training and need the expertise of those who are completely familiar with the program goals.

We look forward to working with Sound Partners Programs in future years to come and hope you continue to provide the excellent tutor training we received this year.

Sincerely,

Cristina Amburgey

Cristina Amburgey, Volunteer Coordinator
Bryant Montessori
Tacoma School District

Wishkah Valley School
4640 Wishkah Road
Aberdeen, WA 98520

Jude Killen
Site Reading Supervisor
(360)532-3128 Ext. 1210

October 7, 2002

Wishkah Valley School District implemented the use of Sound Partners in September, 2001. We purchased the program intending to use it with our struggling first and second grade readers. We had several transfer students in third grade who entered our district 2+ grades below reading level. The first intervention we started them in was Sound Partners. As they progressed through the year and the program, their success level began to rise. By the end of the year, all three were between 3.2 and 3.9 grade reading level. I believe they could not have made the progress they did without Sound Partners. The foundation of their success was strengthening their basic skills through the use of Sound Partners.

For the other primary students using Sound Partners, all made more than one year's growth within the year. We also used Sound Partners as part of our Summer School curriculum. It was included in our after-school program and used by our Washington Reading Corps staff. I would recommend this program for any one-on-one tutoring program.

Sincerely,

Jude Killen
Site Reading Supervisor
Wishkah Valley School

Patricia Vadasy, Ph. D.
Director, Sound Partners Programs
Washington Research Institute

Dear Pat,

Here is a letter of support/need that you can include in your grant application. I sure hope that you are successful and that this might help.

This is McCleary's second year using the "Sound Partners" program. The well scripted lessons (100) are quite enabling to volunteers who have a minimal background in phonics. We had training for our para-pros last year by company staff and found it to be quite helpful. The trainers were cognizant of our needs and did a good job! Since positions change each year, it would be most helpful to have additional training on a yearly basis. It is important that teachers understand available resources. We have also experienced a big change in who our volunteers are this year and training is essential for them also.

Sound Partners is a systematic, repetitive program that facilitates a students' knowledge of letter/sound association, blending and segmenting skills. It is an excellent supplementary program based on 1 to 1 tutoring. The better trained the instructors are, the more successful the program will be. Often, children can become bored and with proper training, enthusiasm can be facilitated by the tutors.

McCleary is in a grant process, where we are being closely monitored to help ensure that all children are fluent readers by the end of 3rd grade. Some students require several doses of phonics based materials. It has been proven that children who are having difficulty learning to read receive help as early as possible. This program is excellent for those students who do not yet understand letter-sound relationships. By careful tutoring, most reading failures can be prevented and this is ensured through proper training of all tutors!

Sincerely Yours,
Cecelia Bond
Reading Coach - McCleary School #5

* Being shown how and given a chance to practice is much more powerful than simply reading instructions. It minimizes individual interpretations from teachers and tutors.

October 29, 2002

Patricia Vadasy, Ph.D.
Director, Sound Partners Programs
Washington Research Institute
150 Nickerson Street, Suite 305
Seattle, WA 98109

Dear Patricia:

In January of 2002 I completed the Sound Partners training at St. George school on Beacon Hill. In just a few hours, I was equipped with the information I needed to reach out to struggling children with the desire to learn. I worked with six children four mornings a week, providing them with valuable 1:1 tutoring support. Sound Partners strengthens children's academic skills, improves the student/teacher relationship, and is a valuable resource accessible to anyone willing to learn.

Working with each child four mornings a week, I was easily able to track students' successes and areas for improvements. Over the course of the year, it was very clear that Sound Partners played a role in their learning. Every child that I tutored in Sound Partners achieved significantly higher scores in reading when tested at the end of the year. The classroom teacher had a lot to do with that success, but for these students who initially found reading to be an extremely difficult task, those morning sessions where they received individual instruction were pivotal. Another example is of a boy I tutored over the summer using the Sound Partners method. At the end of Kindergarten he was tested into a lower reading group to work with a reading specialist the next year. After only 3 months of working with Sound Partners during the summer, he returned to school and tested out of the special group. He had caught up with the rest of his class.

Sound Partners also serves as a communication tool between tutors and teachers. With class sizes averaging around 30, classroom teachers often can't take the time they'd like to work with and recognize all the individual needs of their students. Sound Partners tutors are in a unique position to share students' progress with teachers as well as garner additional information from teachers about students. The more that teachers and tutors know about their students the more they can help them.

The simple yet effective structure, affordable materials, and free, quality training make Sound Partners an ideal tutoring program. Anyone can learn the effective way to achieve positive results in just a half hour 4 days a week. I gained valuable relationships with my students and watched each of them as they strengthened their reading, writing, and spelling skills and discovered the fun in learning.

As the number of children who struggle with reading grows, the need for quality tutors also increases. Sound Partners can only be successful with quality, well-trained tutors. By offering free training, the Washington Research Institute is spreading knowledge.

Sincerely,

Jill Andersen

Jill Andersen
10508 Exeter Ave NE
Seattle, WA 98125
(206) 799-1896
jillandersen2001@yahoo.com

EDMONDS 15 SCHOOL DISTRICT

HAZELWOOD ELEMENTARY SCHOOL

3300 204th St. S.W., Lynnwood, WA 98036-6899
425-670-7884 FAX 425-670-7883

Dr. Ellen Kahan
Assistant Superintendent

Tim Parnell
Principal

Includes Brier, Edmonds, Lynnwood, Mountlake Terrace, and Woodway

Patricia Vadasy, Ph.D.
Director, Sound Partners Programs
Washington Research Institute
150 Nickerson Street Suite 305
Seattle, WA 98109

Dear Patricia,

It has been our honor and blessing to have he Washington Research Institute staff train our parents and staff to use the Sound Partners program. We have several success stories—children who were in the sound Partners parenting program here over the last three years at Hazelwood and who are now very strong and confident readers as one result. We have staff who have taken on struggling readers—we can count among them a second grader in my class who was very much behind in his reading last year—he is a confident reader and gaining ground quickly to catch up to the second grade level. I know of two families where the tutoring parent is now tutoring younger siblings—eager to borrow from our library of practice books. In short, we are creating generations of Sound Partners!

Our goal this year is to pair up willing parent tutors with struggling students during the school hours. We have found that the children who need Sound Partners the most also need extra, *in-house* support. We are looking to have staff and parents who can take the time to teach a student four days a week for about twenty minutes each session to get them able to read.

All this effort depends upon the Sound Partners training for our new tutors and newly interested staff members. Those of you who are in education know how tight our public school funding is, especially this year. To keep maintain and propagate this EFFECTIVE program our schools have to rely on outside funding for these training sessions.

Urging you to fund this research based, effective program,

Penelope E Nichols

Penelope E. Nichols, M.Ed.
Reading Coordinator
Hazelwood Elementary School

Attachment: 2000-2001 Sound Partners Survey

Sound Partners Survey

Parent/Tutors were asked to complete a survey in June 2001. Eleven surveys were returned. One of the surveys was not completed as the parent was planning to tutor her child during the summer and therefore had no responses to report. A table of the tabulated data and related graphs accompany this report. Written comments and recommendations are appended. What follows summarizes the data:

Results

Overall, the parents responded quite favorably to the Sound Partners program. Three graphs of the numerical data illustrate that most of the surveyed elements of the program were rated at or around the top of the five-point scale. The data and the graphs are described and then analyzed below.

How effective are these aspects of the program?
Training and Lesson Materials were ranked by all respondents as highly effective (5 or 4 on a 5 point scale). The Book checkout /purchase service also ranked highly but did not apply to the one who used a library and to the other who borrowed books. The Follow-Up sessions were the only surveyed element that received mostly a neutral score by 4 out of 6 respondents who were able to attend them.

How effective has Sound Partners been with regards to your child's...
Parents ranked the effectiveness of Sound partners at 4 or 5 (on a 5 point scale) for Ability to read and Willingness to read independently! This is an intended effect – by providing specific skills, students are more willing to read. The widest range of responses was for Feelings of success. Over half the respondents ranked Feelings of Success at the top score of 5! Yet there were 2 parents who scored a 2, with the other two parents in between. One of the "2" parents noted that "the redundancy bored him." Most students increased their Confidence in reading although three parents rated a more neutral score of "3" on the five point scale. It is important to notice that *no* parent ranked the Sound Partners program as ineffective (a score of 2 or 1) for Confidence in reading, and that this was true for students who were at the beginning of the program as well as for those who had completed the program.

Importance of having the following aspects of the program:
All respondents ranked Free training, Free lesson materials, and the Book loan / purchase program as essential aspects of the Sound Partners program. Seven out of the ten parents also considered the Childcare during training as essential, while three others were either neutral or did not need the service

Analysis

Overall, the responses to the program were *very* positive. It is clear that future Sound Partners programs should have free training and lesson materials, and that a book loan service is also important. While all parents do not need childcare, those who did need it find it essential to their participation.

Our training sessions, lesson materials and book checkout/ purchase service seem to be very effective. The follow-up sessions seem to require some improvements that were recommended by the parents in their Written Comments.

70% or more of the parents gave high marks to Sound Partners effectiveness in developing their children's ability to read, feelings of success, confidence in reading and willingness to read. In short, the Sound Partners program seems to build positive feelings towards reading. It is significant that these respondents include students who range from those who have completed only a quarter of the program to those who have completed the program. In short, the positive effects of the program appear early in the program!

Written Comments

Overall, **Training sessions** seemed to be well received. One parent suggested modeling with a child instead of adult and adult pretending to be a child. Both would be my recommendation, as predictable situations are possible with the adult modeling as child, while the unpredictable and management issues appear with a child model.

Follow Up sessions may be improved in attendance if sessions are not held on Wednesday nights according to one parent. Breaking follow-up sessions into groups according to where in the program one is might reduce "feelings of competition" (e.g. lessons 0-30, 31-60, etc.).

Parents in general, had positive comments about the **Training materials.** They were reported as easy to use and well structured. One parent noted that they adapted the materials to their kindergartner by not having them write as much as requested.

The **Book Checkout or Purchase** program was deemed "very efficient" or "excellent". One parent's suggestion, which may well be more effective than our present system, would be to send a set of the books home just *prior* to the lessons, so that the books are already in hand when the lessons are being taught. Great idea and this would be easy to do, as the first six lessons require no books at all! From my perspective as coordinator, I can easily keep track of the Sound Partners with the book checkout form I developed. I would prefer that *all* Sound Partners check out books, so that I can more effectively support parents in a number of ways.

Lessons were considered very clear, and one parent especially appreciated the prompts. S/he also liked how reading writing, spelling and sounds were all included. Yet another parent would have liked some more movement as well. Two others considered the lessons as having "a lot of boring repetition".

The **Lesson schedule** brought the most comments. Parents with kindergartners found it hard to keep them still for half an hour four times a week. Some of the parents modified the amount of time or material covered. This seems reasonable. One parent commented that although it was difficutl to stilck to the four-times-a-week schedule, she found that it was more effective to keep to that schedule. It seems that the consistency and frequency is more important than making a kindergartner or very active child sit for half-an-hour.

Celebrations: some parents built in a kind of reward system while others would look for external recognition for all the time and effort they put in. To be considered are some kinds of milestones to recognize *both* parent ad student efforts along the way.

The **one-on-one** aspect of the program was generally appreciated. Parents recognized that there were days when "attitudes" made it more difficult, or that they would have liked a little relief themselves! Others modified the program to fit their child's needs for activity and attention. From my perspective, there was an added gift for the children: guaranteed, regular time with a parent totally focused on them! I found it remarkable that children who were finished with the program were eager to have me send home the fifteen additional lessons developed by the Institute. I think the appeal is regaining that very focused, successful time with mom or dad!

Conclusions

For the 2001-2002 school year, we will take advantage of the training still offered by Washington Research Institute before their grant expires October 31st, 2001. Some parents have donated their lesson manuals for re-use and we will offer our extra lesson manuals to those who cannot afford a nominal fee of $15. We offer childcare to those with children. The book loan program seems to work well with an easy checkout system with a fast turn around. Fifteen additional lessons and their corresponding books will be in place this summer. The overall reported effectiveness of the program suggests that we have a very positive reading program for our beginning readers!

ARIZONA PARENT & EDUCATIONAL RESOURCE CENTER
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Patricia Vadasy
Program Director
Washington Research Institute
150 Nickerson Street, Suite 305
Seattle, WA 98109

Dear Patricia,

Our experience thus far with the Sound Partners program in the Chandler Unified School District has been very successful. Due to the success of Chandler's program we have had many inquiries from other districts on the program. To accommodate the needs of the other districts around the state, APERC would like to purchase 10 more copies of the Sound Partners Program.

The training that you provided was most beneficial to our organization. We look forward to continuing to provide this program to other districts with similar needs as Chandler Unified.

Please let me know how you would like to handle payment for the materials. I can be reached at above address and phone number.

Sincerely,
Jenni Brasington
Jenni Brasington
Deputy Director APERC

ARCHDIOCESE OF SEATTLE
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Patricia Vadasy, Ph.D.
Director, Sound Partners Programs
Washington Research Institute
150 Nickerson Street, Suite 305
Seattle, WA 98109

November 12, 2002

Dear Patricia:

We are most pleased that you have offered your professional development training to Archdiocese schools as part of your proposed grant application. Archdiocesan schools in the Seattle area serve many young children who are at risk for reading problems by virtue of having English as a second language, and young children who have learning disabilities. Because we have fewer reading and special education specialists in our schools than in public schools, it is critical that our K-3 classroom teachers be as well prepared as possible to deliver effective reading instruction.

I am familiar with the research showing that primary teachers are often lacking in knowledge of the structure of the English language that would enable them to help students overcome obstacles to reading due to orthographic and phonological features of the language. It is also important that all of our primary teachers be familiar with the research-based assessments and interventions that are most effective in preventing remediating early reading difficulties. The year-long intensive format you have outlined for your teacher staff development has great potential to help our teachers incorporate research-based practices into their classrooms.

Finally, the Sound Partners training that the proposed grant will continue to support is an excellent complement to the teacher staff development. Several of our schools have been using Sound Partners as a supplement to their classroom instruction, and students have shown excellent progress. In the current climate of education budget cutting, it is imperative that schools have access to free or low-cost staff development in programs like Sound Partners. Our schools and teachers need these resources to insure that no child is left behind. It would be wonderful if you will be able to offer Sound Partners training to other Archdiocese schools in the state.

As the principals at the proposed individual Archdiocese sites have assured you, our teachers have paid time for professional development that they will be able to commit to project involvement.

We look forward to expanding our relationship with the Washington Research Institute and the Sound Partners program when your grant is funded. We thank you for including our at-risk students in your research plans.

Sincerely,

Anthony Gnanarajah, Ph. D.
Associate Superintendent of Catholic Schools

University of Nebraska Lincoln

DEPARTMENT OF SPECIAL EDUCATION AND COMMUNICATION DISORDERS
Speech-Language and Hearing Clinic

November 20, 2002

Patricia Vadasy, Ph.D.
Director, Sound Partners Programs
Washington Research Institute
150 Nickerson Street, Suite 305
Seattle, WA 98109

Dear Dr. Vadasay:

I am writing in support of your effort to provide high-quality training to professionals on Sound Partners. I have used Sound Partners in state initiatives to promote research in practice in Arizona and Nebraska for the past six years. As you are aware, I currently Co-Direct the Center for At-Risk Children's Services at the University of Nebraska—Lincoln. This past year, we received over 75 requests to provide technical assistance on Sound Partners in Nebraska alone. Indeed, we are training professional development staff across the 18 Educational Service Units in Nebraska to enable us to better meet the demand for technical assistance on Sound Partners.

We use Sound Partners in our directed research project funded by the Office of Special Education Programs. The aim of this three-year project is to examine whether there is a causal relationship between academic competence and social adjustment. This randomized cohort study examines the effects of an intensive early language and beginning reading program (Sound Partners) on the reading, academic competence, and social adjustment of 120 K-1 children at risk of emotional and behavioral challenges over the study period.

In short, we provide technical assistance and use Sound Partners in our work for three reasons. First, we can train professionals and nonprofessionals alike to implement Sound Partners with a high degree of fidelity in a relatively short amount of time. Staff at the schools are then able to sustain the training program with little or no assistance on our part. Second, school staff like the program not only because it is easily implemented and sustained, but because it fits conceptually with the primary literacy curriculum they are providing to all children. Finally, Sound Partners consistently produces positive outcomes across diverse populations (e.g., age, gender, ethnicity, type of phonological core deficit).

I am pleased to write in support of your proposal, and I wish you success in securing funding for this program. Based on over extensive experience, we believe that parents, children, and professionals participating in your project will benefit.

Sincerely,

J. Ron Nelson, Ph.D., Co-Director

253 Barkley Memorial Center / P.O. Box 830731 / Lincoln, NE 68583-0731 / (402) 472-2071

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